



2011 Annual Fishing Newsletter



*Montana Fish,
Wildlife & Parks*

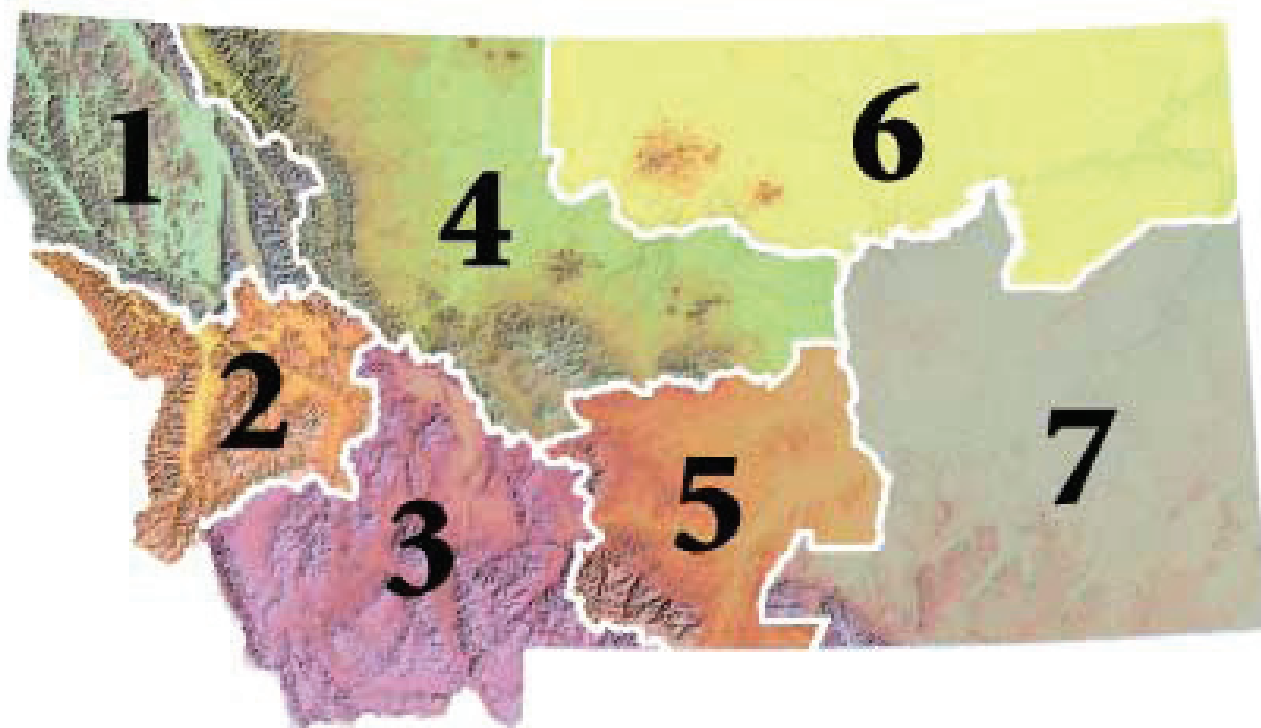
Table of Contents

<i>Introduction.....</i>	<i>1</i>
<i>Region 1 Northwest Montana.....</i>	<i>3</i>
<i>Region 2 West Central Montana.....</i>	<i>6</i>
<i>Region 3 Southwest Montana.....</i>	<i>9</i>
<i>Region 4 North Central Montana.....</i>	<i>13</i>
<i>Region 5 South Central Montana.....</i>	<i>27</i>
<i>Region 6 Northeast Montana.....</i>	<i>33</i>
<i>Region 7 Southeast Montana.....</i>	<i>38</i>
<i>Fish Health Program.....</i>	<i>40</i>
<i>Aquatic Invasive Species Program.....</i>	<i>42</i>
<i>State of Montana Hatcheries.....</i>	<i>43</i>
<i>State Fish Art Contest.....</i>	<i>53</i>
<i>State Fish Records.....</i>	<i>54</i>
<i>Interesting Fish Fact.....</i>	<i>55</i>

INTRODUCTION

As you read through the Fishing Newsletter this year, you will notice the multitude and wide variety of activities and actions that Fish, Wildlife & Parks (FWP) performs in order to provide quality fisheries and fishing opportunities to anglers. Every now and then it's worth stepping back and considering all these efforts within the context of the goals and objectives of the Fisheries Bureau. Quality fishing can only be accomplished through successful fish management, protection of the aquatic habitats upon which the fish depend, and access to our public waters. Our two primary goals for fish management are very straight forward: 1) Provide a diversity of quality angling opportunities through management of self-sustaining wild fisheries and the responsible use of hatchery-reared fish; and 2) Protect, maintain, and restore native fish populations, life cycles, and genetic diversity and continue to provide angling opportunities whenever possible. For the most part, we seek to maintain wild fisheries in streams and rivers and lakes wherever conditions allow. Hatchery fish are typically stocked in lakes and reservoirs where natural reproduction is lacking or where fishing pressure is high and there is a demand for greater angling opportunities. You will notice in the write-ups of the hatcheries that the western hatcheries provide most of the trout and salmon to our lakes, while the eastern hatcheries at Miles City and Fort Peck provide most of our walleye and northern pike. You may be interested to read about some of our more recent unique efforts at hatcheries to produce redband trout and channel catfish along with our successful importation of tiger muskies. Our hatcheries also provide an increased role in helping with native species management. The Miles City Hatchery helps produce pallid sturgeon to help with recovery efforts of this endangered species, while the Yellowstone, Washoe Park and Murray Springs hatcheries play vital roles in cutthroat trout restoration efforts. Cutthroat restoration efforts sometimes include the need for chemical (rotenone) rehabilitation. In 2010, several notable projects are described, including Cherry Creek in Region 3, Sage Creek in Region 5 and Blossom Lake and the South Fork Flathead projects in Region 1. Of course all fish management efforts would be much more difficult were it not for the efforts of our fish habitat section, where the primary goals are: 1) Preserve and protect aquatic habitats; 2) Restore and enhance degraded habitats; and 3) Restore and maintain adequate water flow in streams and satisfactory water levels in lakes and reservoirs. This is why you will see write-ups of the many habitat enhancement projects our biologists conducted this past year. You will find that we have been involved in significant efforts in the Bitterroot, Blackfoot, Big Hole, Red Rock, Jefferson, and Tongue rivers—to name a few! Much more can be found in this newsletter, including a discussion of our latest management plan (Upper Missouri Reservoirs—Canyon Ferry, Hauser and Holter) and descriptions of efforts to optimize balance fisheries opportunities on large and small reservoirs alike. For more detail on the Fisheries Bureau's goals and programs and how our activities help us achieve those goals, go to our website at: <http://fwp.mt.gov/doingBusiness/insideFwp/aboutUs.html> where you will find a copy of the "Montana Fish, Wildlife & Parks Strategic Plan-The Road Ahead."

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REGION 1 NORTHWEST MONTANA

Regional Overview - Jim Vashro

Weather played a big role in fishing in northwest Montana in 2010. An average snow year slopped into a very wet and cold spring. That kept stream flows above average through June and avoided summer fishing closures but put a damper on fishing trips. July and August then had some very hot days that were uncomfortable for fishing by mid-day but transitioned into a very pleasant fall for those that were fishing instead of hunting.

Fishing for lake whitefish in Flathead Lake attracted large numbers of anglers in 2006 and 2007 with large catches of these hard fighting and tasty game fish. However, the summer fishery is dependent on young of the year (YOY) yellow perch which form large schools in mid-summer off main points. Whitefish and many lake trout can be caught when they move in on this abundant food source. Flathead Lake has been pummeled by strong cold fronts in the springs of 2008, 2009 and 2010. High winds and near freezing temperatures in late April and early May, when the perch are spawning in the shallows, appear to kill most of the eggs or fry or delay plankton blooms for those perch that do hatch. The whitefish are still abundant but not concentrated so summer fishing on Flathead has dropped by up to 20,000 angler days in recent years. The other part of the story is that perch are also a popular game fish that enter the fishery when they are 6-8 years old. That means that starting about 2014 the perch fishery could also sag as weak year classes cycle through.

2010 did produce some very nice fish. Russ Geldrich of Kalispell

caught a new state record pygmy whitefish from Little Bitterroot Lake in February, icing a 0.36 pound, 9.14 inches monster pygmy. The first record pygmy whitefish was a 0.16 pound fish caught from nearby Ashley Lake in 1982. Since then anglers have had a lot of fun seeing who could catch the next giant pygmy from

the depths of those two lakes.

The next story gives hope for all beginning anglers and makes seasoned anglers gnash their teeth. Ivan Keeney of Kalispell decided to give fly fishing a try. He bought a \$21 outfit from a discount store and practiced on rainbows in one of the family fishing ponds in Kalispell. Ivan decided to branch out and tried for northern pike in nearby Smith Lake. Fishing from a canoe Ivan had caught numerous hammer-handle pike when he hooked a monster pike. After an hour he had the fish boatside but no way to land it so he wrapped his coat around his hand and grabbed the



Ivan Keeney of Kalispell with a new flyfishing World record northern pike caught from Smith Lake West of Kalispell. Fish was 47", 30.0 pounds

fish. He brought the fish to FWP headquarters where biologists checked the record books and recommended he have the fish weighed on a certified scale. The 30.0 pound, 47 inch northern is smaller than the Montana state record (37.5 pounds) but has been certified as the fly fishing world record northern pike by the Freshwater Fishing Hall of Fame. Ivan noted his fly rod was cracked after the fight so the Hooked on Fishing program gave him a new outfit and he is out there trying for more big fish.



Russ Geldrich of Kalispell caught a new state record pygmy whitefish from Little Bitterroot Lake.

Northwest Montana is blessed with many great streams and lakes. But the family fishing and urban ponds are tremendously popular with families with little time or resources to travel around the region. The ponds are heavily stocked and sustain thousands of days of fishing each year, uniting friends and families in a healthy outdoor

FISHING NEWSLETTER 2011

activity. Region 1 already has 9 ponds but the program will receive a tremendous addition in 2011. Robin Street is a long time farmer, conservationist and angler who has built and developed a 5 acre pond just north of Kalispell along the Whitefish River. Robin has fully developed the pond, now called Pine Grove Pond after a community and school his homesteading grandparents established more than 100 years ago, and is donating a 13 acre parcel with the pond to FWP for a family fishing pond. With family fishing ponds everyone can fish but adults have to catch and release. The pond will be stocked with rainbows and westslope cutthroat and will be a great addition to the Hooked on Fishing program with area schools. The area is also slated for heavy residential development in the future.



Aidan Long, first fish caught from the Buffalo Head Family Fishing Pond near Kalispell.

Flathead Lake is co-managed by FWP and the Confederated Salish and Kootenai Tribe. The 10 year Flathead Fisheries Co-Management Plan expires this year and the two entities are looking at future management. The Tribe would like to see more emphasis on native bull and westslope cutthroat trout (WCT). FWP is trying to find some balance between native fish management and recreational fishing for non-native lake trout, lake whitefish and yellow perch. The Tribe is taking the lead on an environmental assessment on future management goals and techniques for lake trout which could include enhanced recreational angling, bounties, commercial fishing and agency netting. Anglers are passionate for both sides of the debate and are encouraged to stay engaged as the process develops.

South Fork Flathead Watershed - Matt Boyer

In 2007, Region 1 fisheries staff initiated a multi-year project aimed at restoring native WCT populations to 21 high mountain lakes in the South Fork Flathead watershed. Substantial progress has been made on this long term conservation effort and, to date, WCT have been restored in twelve lakes using either chemical treatment with rotenone or genetic swamping techniques.

Lakes are treated with rotenone in fall to remove nonnative trout and the following spring after ice-out they are restocked with three age classes of WCT, including fish up to 13 inches in length.

Growth rates in these reestablished native fisheries have been impressive and natural reproduction from the older age classes is already contributing to the growth of these populations. Furthermore, anglers trying their luck in these lakes are reporting good catch rates. For more information on this project please visit our website: <http://fwp.mt.gov/regions/r1/wctproject/>

This past year we also collaborated with two Montana State University (MSU) graduate students to help answer important questions pertaining to fisheries management. The first study was designed to test the effects of different hatchery rearing conditions on the growth and survival of WCT after release into the wild. Fry were raised in different rearing environments at the Sekokini Springs facility prior to being stocked in an outdoor pond. Fish from the pond were recaptured this fall to measure growth and survival rates. Results from this work will help determine whether simple hatchery modifications, such as installing overhead cover, can improve post-outplanting performance of trout.



Newly designed helicopter fish buckets used to stock catchable-sized WCT in high mountain lakes.

A second graduate student research project that is underway involves testing the effects of

hybridization between westslope cutthroat and rainbow trout on several measures of fitness such as growth, survival, and swimming ability. Presently, hybridization with introduced trout is the primary threat to native westslope cutthroat and a better understanding of how hybridization affects fish performance is important for predicting future trends in our native WCT populations.

Noxon Reservoir Pike and Walleye - Jon Hanson

Noxon Reservoir is most well known for its largemouth and smallmouth bass fisheries. The bass fishing is good enough that several semi-professional tournaments are held there every summer. Juvenile largemouth bass recruitment is annually monitored with bi-weekly beach seining in Noxon Reservoir from August through October. The goals of juvenile seining are to trace juvenile abundance, growth rates, and hatch timing. Biologists can predict survival of YOY bass based on their length entering winter. A minimum size of around 2.5 inches is thought to be adequate to provide for good survival, although factors such as the length and severity of winter, and prey abundance also come into play. Length of YOY year bass going into this winter suggests they should have moderate to below average over-winter survival.

Less well known are the northern pike and walleye fisheries. Northern pike have been established for several decades in Noxon, and fish over 20 pounds are taken annually. In 2008, a very strong year class of northern pike was produced, likely from the abundant snowpack and associated runoff. These fish will be three years old next summer, which should put them in the 24 – 28 inch range. Anglers who target pike should expect higher than normal catch rates for this size class of fish. The walleye fishery on Noxon is even less

well known. The illegally introduced population appears to be slowly growing, and gillnet catches from October of 2010 were the highest ever recorded in the reservoir. Walleye in Noxon Reservoir are usually under 20 inches in length, but fish over 10 pounds have been caught by both anglers and fisheries biologists. The long-term effects another top predator may have upon the overall fishery are still uncertain.

Blossom Lakes Native Fish Rehabilitation - Chris Horn

Blossom Lakes (upper and lower) are located at the headwaters of Prospect Creek, a stream near the Idaho border that harbors intact westslope cutthroat and bull trout populations. Brook trout were planted in the lakes in the late 19th or early 20th century by some unknown person or group. They have remained in the lakes ever since. Unfortunately, in 2007 those brook trout were captured in Prospect Creek a few miles downstream of the lakes, indicating that they were expanding into native trout habitat. Brook trout are notorious for out competing cutthroat trout and hybridizing with bull trout, leading to declines in native trout populations. So, it was decided to replace those brook trout with native WCT in order to protect downstream native fish populations.

In August 2009, FWP Region 1 staff, with tremendous public agency, private industry, and individual volunteer help, removed those brook trout from upper and lower Blossom Lakes, and upper Prospect Creek, using a combination of electrofishing and rotenone application. Assessment of the removal in fall 2009 and spring/summer 2010 indicated that nearly all of the brook trout were gone, and the lakes were ready for stocking. In the summer of 2010, several hundred catch-

able and several thousand fingerling westslope cutthroat were planted into the two lakes. Stock-



FWP helicopter pilot Joe Rahn airlifting a load of rotenone to Lower Blossom Lake, Sanders County, Montana.

ing will continue in future years until a naturally-reproducing population takes hold. Blossom Lakes are in the Lolo National Forest, and can be reached with a two mile hike beginning at Thompson Pass, west of Thompson Falls. Like most mountain lakes, the best time to visit is in summer.

Wilderness Fish Management - Leo Rosenthal

Region 1 provides some of the finest wilderness angling opportunities in the state. Anglers can find solitude and excellent fishing for WCT in both the South and Middle Forks of the Flathead River. Additionally, the South Fork is one of only a handful of places in which anglers can legally catch and release bull trout, a fish listed as threatened under the Endangered Species Act. Fisheries biologists have been monitoring these cutthroat populations since the early 1980's, and because of the remote nature of these rivers, have adapted to using more primitive technologies to acquire their estimates. Much of the Middle Fork and the entire South Fork lie in the Great Bear and Bob Marshall Wilderness areas. Limitations on the type of equipment and the distance to access these locations necessitate the use of pack animals rather than pickup trucks to get there, and angling rather than electrofishing to sample fish. Mark-recapture estimates are conducted using angling to mark the fish and snorkeling for the recapture survey. The time and effort necessary to complete these surveys only allows them to be completed every three years.

A mid-summer rain event in 2009 caused the Middle Fork to turn muddy as a crew was attempting to collect a population estimate. All hopes for acquiring an accurate estimate were

abandoned, and the crew went home empty handed. Therefore, 2010 required crews to complete estimates in both wilderness rivers. Over the course of two weeks in late July/early September, the crews completed population estimates on both the Spruce Park (Middle Fork) and Black Bear (South Fork) sections. The surveys were completed under ideal weather conditions, with low, clear water enabling personnel to mark and re-sight many fish. Estimates revealed that robust populations of WCT continue to thrive in these reaches, with 448 fish per mile in the Spruce Park reach and 807 fish per mile in the Black Bear reach. Although both sections produced an abundance of smaller cutthroat, both rivers contained many fish over twelve inches. A regulation change in 1984 required anglers release all fish over twelve inches, and has led to a trophy westslope cutthroat fishery unlike anywhere else in the state. In recent years, FWP crews conducting work in these backcountry rivers have noticed an increase in angling pressure. FWP biologists will continue to monitor these populations to determine if these increases are affecting the cutthroat population and the overall fishing experience.



Fisheries personnel packing into the Middle Fork Flathead River.



A nice westslope cutthroat tagged for a mark-recapture population estimate.

REGION 2 **WEST CENTRAL MONTANA**

Bitterroot Drainage - Chris Clancy

The fishing season in the Bitterroot drainage is winding down. Due to low snowpack levels, there was considerable concern about the potential for low summer streamflows and possible fishing closures in late summer. However, high rainfall during spring and early summer led to above

FISHING NEWSLETTER 2011

average summer streamflows and 2010 turned out to be a fine year for fishing.

Fish population estimates on the Bitterroot River indicate that, overall, the fishery is doing fine. As a general rule of thumb, rainbow trout, are the most common trout in the river (mountain whitefish are more abundant, but not sought after by most anglers). The rainbow trout populations have been increasing in the lower river, downstream of Hamilton. In the upper river, the number of rainbows has declined, somewhat, probably due to whirling disease, but there are still healthy populations for anglers to enjoy. Brown trout numbers have remained stable in the upper river and have increased nicely in the lower river. Westslope cutthroat abundance is much higher now than before catch and release regulations were instituted around 1990, but they have declined somewhat in all sections in the past 5 years. Overall, trout populations remain respectable and most anglers have reported high quality fishing.



Diversion dam on the Bitterroot River adjacent to Hamilton.

We have embarked on a project to solve a boat passage barrier on the Bitterroot River. The Corvallis Canal is a large ditch that withdraws water from the Bitterroot River. The dam is difficult to pass a boat or raft over during spring and summer. FWP along with Bitterroot Chapter of Trout Unlimited (TU) and The Fly Fishers of the Bitterroot have embarked on a project to have a boat pass built to allow easier passage over the dam. We have acquired some start-up funding from FWP to have the dam surveyed and we have

hired a firm from Boulder, Colorado to design the new structure. We will be seeking other grant money to complete the building of the structure in 2011.

A small stream restoration project was completed on Cameron Creek this year. A channelized reach that was adjacent to two roads was rebuilt into a meandering channel located back where it historically flowed decades ago. TU and Fly Fishers of the Bitterroot members helped with some of the willow planting and manual labor.



Cameron Creek stream restoration during construction and a few months after construction.

Other activities this year included monitoring populations of native cutthroat and bull trout on Bitterroot National Forest streams and mountain lake surveys in the West Fork Bitterroot River drainage. There are over 130 mountain lakes in the Bitterroot drainage and we stock fish in about 12. The reason we stock so few is two-fold. There are quite a few lakes that have adequate spawning habitat to support a wild population, therefore, they don't require stocking. We also want to maintain some fishless drainages to minimize the

impact these fish have on resident amphibians. One issue that continues to be difficult to deal with is stream alterations, primarily streambank stabilization, in the Bitterroot River and tributaries. There were some large projects that occurred during the spring, which conflicted with angling on the river. We are trying to discourage stream alteration projects, primarily those that produce high levels of turbidity during the times of year when angling pressure is high. This conflict is unavoidable at times, but we are working to minimize the impacts to anglers.

Blackfoot River – Ron Pierce

The story of the Blackfoot River continues to be one of restoration and renewal, thanks to the hard work of river conservationists. The year 2010 marked two decades of continuous dedicated river restoration work. As in the past, this work involves a myriad of landowners, conservation groups and natural resources agencies all working collaboratively to improve the ecological health of the Blackfoot River. The 2010 work continued from the very headwaters of the river to the mouth of the Blackfoot River. The Blackfoot River also had favorable flows and cool water temperatures for the third straight year thanks to spring and summer rains. This period of favorable flows followed a seven-year drought.

At the very headwaters of the Blackfoot River, the proposed clean-up of the toxic Mike Horse Mine tailing dam continues to unfold. The clean-up effort, now in the final planning stages, will first focus on removal of contaminated mine tailings from upper Blackfoot River. This clean-up will precede the full reconstruction and revegetation of new stream channels within the impacted areas. Once the conceptual restoration plan for the upper river goes out for public review, it will be further refined in the spring of 2011. Once the clean-up of the contamination is completed, the restoration plan is intended to set the stage for the recovery of native trout in an area where they were once abundant.

In the middle Blackfoot River, the Chamberlain Creek conservation easement was completed in 2010. With the help of the Nature Conservancy and others, this project placed about 18,000 acres of former Plum Creek Timber Company land into primarily State ownership. This

project will maintain a working forest, while also protecting a small but critical cutthroat trout spawning tributaries of the Blackfoot River. The fisheries aspect of the project will also remove certain roads adjacent to streams and places special management on the riparian areas in order to allow the riparian plant community to fully reestablish and thereby improve instream habitat conditions for cutthroat trout over time.



Photo 1. This picture shows the logs cribs and old bridge piers that are in the process of removal.

At the mouth of the Blackfoot River, the renaturalization of the lower two miles Blackfoot River continues in conjunction with the reconstruction of the Clark Fork River located at the former Milltown Reservoir site. The overall “Milltown” project is the largest river restoration effort in the Montana. Once completed, natural river conditions and movement corridors for all migratory fish will be reestablished. As part of the larger project, buried logs, rip-rap, abandoned bridge piers along with a contaminated settling pond are now all being removed from the lower Blackfoot River (Photo 1).

With three good back-to-back flow years, fisheries in the Blackfoot River have improved. This is especially the case for native trout in the lower Blackfoot River. Cutthroat trout continue a 20-year upward trend and bull trout hard hit by the recent drought are showing signs of population increases as well (Figure 1). Hopefully, good water years will continue.

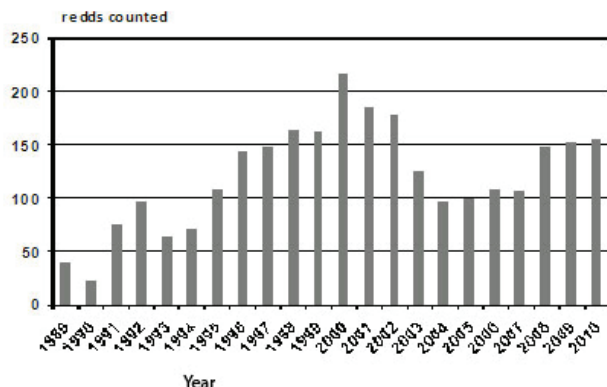


Figure 1. Bull trout redd count totals for three primary tributary streams of the Blackfoot River, 1989-2010.

REGION 3 SOUTHWEST MONTANA

Arctic Grayling Recovery Program - Jim Magee

Montana Arctic grayling were historically distributed in lakes and streams in the upper Missouri River drainage. Fluvial or stream dwelling grayling populations have been reduced to one population in the Big Hole River, approximately 4% of their native range. Native lake grayling populations exist in the Big Hole and Red Rock drainages. In September 2010, the United States Forest Service (USFS) ruled that Arctic grayling in the Missouri River drainage were a distinct population segment and classified Missouri River grayling as candidate "warranted but precluded" species for Endangered Species Act (ESA) listing. The ruling includes native populations of grayling in the Missouri River drainage of all ecotypes: fluvial (river dwelling) and adfluvial (lake dwelling) populations. Montana grayling are still classified as a species of special concern by the State of Montana.

In 2010, conservation efforts for Montana grayling included the continuation of one of the largest conservation programs at a watershed scale on private lands in the country; The Big Hole Arctic Grayling Candidate Conservation Agreement with Assurances

Program (CCAA), efforts to reestablish grayling in the upper Ruby River and conservation efforts to benefit Red Rock grayling populations.

Big Hole Grayling

The CCAA is an agreement between FWP, the United States Fish and Wildlife Service (USFWS) and any non-federal landowner who voluntarily agree to manage their lands or waters to remove threats to grayling. The landowners receive assurances against additional regulatory requirements and incidentals take authority should grayling be subsequently listed under the ESA. Enrollment includes 33 private landowners and approximately 160,000 acres of state and private land. This represents one of the largest CCAA in the United States in terms of the number of landowners and privately property enrolled. The conservation goals of the program are achieved by working with each landowner to develop a conservation plan for their land that identifies specific actions that can protect and provide benefit to grayling.

Site-specific plans are developed with each landowner by an interdisciplinary technical team made up of individuals representing FWP, USFWS, Natural Resource and Conservation Service (NRCS), and Montana Department of Natural Resource and Conservation (DNRC). Conservation measures under the agreement will: 1) Improve streamflow, 2) Improve and protect the function of streams and riparian habitats, 3) Identify and reduce or eliminate entrainment threats for grayling, and 4) Remove barriers to grayling migration. This collaborative effort has developed partnerships with private landowners, The Big Hole Watershed Committee, the Big Hole River Foundation, The Nature Conservancy (TNC), TU and federal and state agencies.



Planting willow saplings on the Big Hole River.

In 2010, the CCAA Partners initiated over 25 habitat restoration projects that address limiting factors for grayling in the Big Hole River. Habitat restoration included: projects that stabilized

streambanks and improved riparian vegetation and channel function, riparian fencing, grazing management, developing off-stream stock water systems, installing fish ladders, developing numerous fish friendly diversions and removing non-functioning culverts to restore habitat connectivity and fish passage, the replacement of non-functioning irrigation control structures and measuring devices that benefit conservation efforts to improve instream flows.

Rock Creek Restoration

Rock Creek historically was an important tributary for Big Hole River grayling. In 2006, a habitat restoration project on Rock Creek included reconnecting Rock Creek to the Big Hole River, channel and bank restoration, revegetation, riparian fencing and a grazing management plan. In 2007-2009 improvement were made to the irrigation infrastructure that allowed fish passage and improved ability to manage instream flows. In May 2010, approximately 20,000 fertilized eggs taken from the fluvial Arctic grayling brood stock were placed in Remote Site Incubators (RSIs) to imprint grayling fry into Rock Creek. Incubators produced thousands of grayling and fall surveys documented survivals of many grayling that are inhabiting Rock Creek for the first time in many years.

Ruby River

In addition to the efforts in the Big Hole, restoration work continued with the goal of establishing a self-sustaining grayling population in the Upper Ruby River. Reintroduction efforts in the upper Ruby river were initiated in 1997 when hatchery reared grayling were stocked in to the upper Ruby River

from 1997-2003. From 2003-2008, RSIs were used to imprint grayling into the headwater of the Ruby River with the goal of establishing multiple age classes that would successfully spawn and establish a self-sustaining population. In 2009, no supplementation occurred in the Ruby River and population surveys documented natural reproduction and captured multiple age classes. In 2010, population surveys again captured grayling YOY as well as grayling spanning ages 1-5. Natural reproduction and recruitment of juveniles into mature reproducing individuals for the second straight year is very positive progress towards of establishing another fluvial grayling population in Montana.

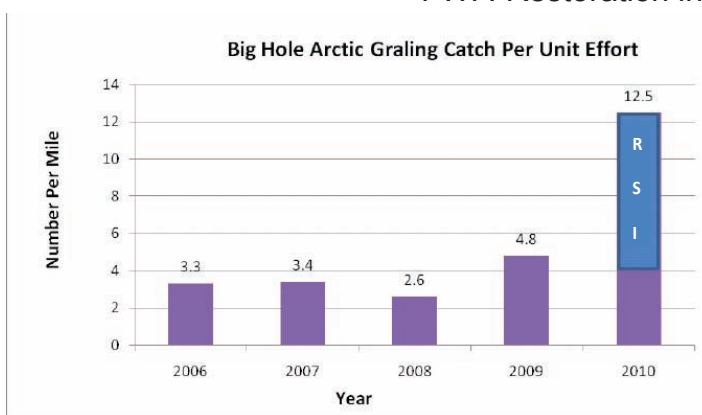


Spawning grayling.

Red Rock Grayling

In 2010, grayling conservation efforts in the Red rock drainage include restoration on Hell Roaring Creek a tributary to Red Rock Creek, the major spawning stream for the Red Rock Lake population. This project evolved from partnerships between private landowners, TNC, USFWS, and FWP. Restoration included channel and bank

restoration, riparian vegetation enhancement and improving instream flows. Additional work will be completed in 2011 that will improve instream flows, riparian vegetation, reduce sediment and potentially expand the grayling distribution and improve habitat.



Catch per unit effort (grayling per mile) from 2006-2010 FWP electrofishing surveys. Surveys from 2010 include grayling captured in Rock Creek that were produced from remote stream incubators (blue), in addition to other Big Hole River and tributaries monitoring reaches (purple).

Efforts were initiated to establish a Red Rock Lake brood population in nearby Elk Lake. FWP and the USFWS worked together to collect gametes from the Red Rock population and

develop a brood stock management plan. Restoration to create spawning habitat for Elk Lake Arctic grayling and WCT is planned for 2011.

For an update on grayling recovery efforts please visit the FWP's website at <http://fwp.mt.gov>

Upper Yellowstone River - Scott Opitz

The upper Yellowstone River continues to support strong numbers of rainbow, brown and Yellowstone cutthroat trout (YCT). Population estimates for the Corwin Springs area, completed in spring 2010, showed YCT were 296 per mile and as large as 16.2 inches. Rainbow trout were around 525 per mile and brown trout were 218 per mile. The largest rainbow and brown that we captured were 21.5 and 19.1, respectively. The Yellowstone had another good water year that should contribute to strong recruitment of this year's fry. We continued our FLOY tagging effort in YCT this year. Tagging began in 2005 and we use this information to get feel for movement of these fish throughout the river. The tags are yellow and located behind the dorsal fin. If you happen to catch one of these fish please note the tag number (YSR followed by four digits), date, length and weight, and the location the fish was caught, and report this information to your local FWP office.



Fisheries technicians Matt McCormack and Dave Hergenrider collecting trout length and weight data from the Springdale section of the Yellowstone River.

The Shields River had another good water year this year with good flows throughout the year and no extreme water temperatures. Abundances of rainbow, brown and Yellowstone cutthroat continue to be on par with the previous ten years. The good flows and water temperatures should help recruitment of this year's fry and potentially

increase abundance next year. YCT were also tagged like those in the Yellowstone. If you catch one of these fish please report the information requested above to your local FWP office. The new fishing access at Grannis, on the lower river, is slated to open in spring of 2011 and will provide walk-in access to the Shields River. This will be the first public access on the Shields River.

Willow Springs – A 25-year Restoration Experiment - Ron Spoon

A small tributary to the Jefferson River, Willow Springs, currently produces thousands of juvenile trout for Jefferson River anglers thanks to the generosity of landowners and persistent efforts on the part of Bruce Rehwinkel, a retired FWP fisheries biologist (currently working for TU). Joe and Marianne Adams have owned the Willow Springs Ranch since the early 1980's, and that is when they met Bruce Rehwinkel. By 1986, efforts were initiated by the Adams and Rehwinkel to slowly transform a muddy slough into a clear, flowing spring creek.

The stream slowly improved after installing a riparian fence and using hand labor in the "slough" over a period of nearly 20 years. In 2005, Rehwinkel and the Adams agreed to speed-up the healing process by using heavy equipment and funds from FWP's Future Fisheries Program. The transformation from a slough to a stream was almost immediate during 2005 (see photographs), but the process for landowners and biologists to prepare for this work took nearly 20 years.

Joe and Marianne Adams are virtually unique among owners of property in Montana containing a valuable spring creek. Joe is an avid angler but he has never fished Willow Springs. Rather than fishing, his enjoyment of the spring creek consists of watching fish spawn in the clear waters of the stream running by his house, and waiting on his porch for results of the final count of spawning beds (redds) during FWP's annual surveys. The project results are impressive. There were no rainbow trout redds in Willow Springs in 1990, and in recent years, over 200 rainbow trout redds are constructed in the spring creek each year. This spawning activity has improved fishing for several miles of the Jefferson River, and anglers

owe thanks to the Adams and Bruce Rehwinkel for their efforts that spanned over 2 decades.



Willow Springs Pre-Construction 2005.



Willow Springs six months after construction.

WCT Conservation - Lee Nelson

In 2010, biologists continued to develop and implement numerous WCT conservation projects in Region 3. WCT once occupied over 11,000 miles of stream in south-west Montana. Competition and hybridization with nonnative trout (e.g., brook and rainbow) and habitat changes resulted in the species being eliminated from 95% of this historic range. Today only about 190 populations remain, with most being isolated to headwater mountain streams, and many are considered “at-risk”. Along with its partners, including the Bureau of Land Management (BLM), USFS, USFWS, National Parks Service (NPS), PPL, Tuner Enterprises, and TU, FWP has initiated

numerous efforts to protect existing WCT populations and expand WCT distribution into new habitats. Often these efforts include the removal of nonnative trout species with fish toxicants (e.g., rotenone) or electrofishing, the placement of a barrier to prevent reinvasion of nonnative trout, and the collection eggs from existing native populations to establish new populations.

Large and small projects alike play an important role in WCT conservation. After many years of effort, the Cherry Creek WCT restoration project (Madison River drainage) is nearing completion. In October 2010, the last stages of rotenone treatments to remove nonnative trout were completed. The treatment ended at a natural waterfall barrier that will prevent nonnative trout from reoccupying the drainage. This nonnative trout removal effort has resulted in more than 65 miles of contiguous habitat being made available for WCT conservation – this is an area several times larger than any remaining WCT population in the region. Since 2006, FWP has been establishing WCT in the upper reaches of the Cherry Creek drainage through introduction of eggs collected from wild and other genetically pure WCT sources. Surveys indicate that introduced WCT have already successfully spawned in portions of the drainage, and adult fish up to 12 inches have been captured several miles downstream from introduction areas. With natural reproduction and dispersal, WCT should naturally colonize much of the 65 miles of stream in the Cherry Creek drainage over the next several years.

In 2010, an effort was initiated to establish WCT in the headwaters of Little Tepee Creek near Hebgen Reservoir. Though many times smaller than the Cherry Creek project, the introduction of WCT to about two miles of currently fishless stream provides an important opportunity to “replicate” the only two native and genetically pure WCT populations remaining in the Madison River drainage. In June, eggs were collected from a WCT population in Last Chance Creek (within Yellowstone National Park), and then fertilized with WCT males from Last Chance and Wally McClure creeks. The fertilized eggs were subsequently introduced to Little Tepee Creek with remote streamside incubators. These incubators allow eggs to develop and hatch at the site

of introduction. The Elkhorn Creek project, near Big Sky, is a similar on-going effort in the upper Gallatin basin. In 2010, eggs were collected and introduced to Elkhorn Creek from two at-risk WCT populations in the Gallatin – the West Fork of Wilson Creek and Wild Horse Creek (both near Bozeman). This is the second year of effort to introduce WCT to four miles of previously fishless habitat. As important as establishing new populations in Little Tepee and Elkhorn creeks, these projects provide opportunities to preserve the genetics of native WCT populations should they be lost, and also provide future opportunities to collect eggs for additional introduction efforts.



An adult WCT captured in Cherry Creek in 2010. This fish developed from one of thousands of fertilized eggs introduced to the stream in 2006 or 2007.

These are but three of the many WCT conservation efforts in the region. Future focus of conservation efforts will include continued replication of existing at-risk populations into secure habitats, and completing mechanical removal of nonnative trout in streams like the South Fork of Warm Springs Creek in the Elkhorn Mountains, Everson Creek in the Red Rock drainage, and Leverich Creek near Bozeman. In addition, several new projects are being explored in streams in the Beaverhead, Big Hole, Gallatin, Madison and upper Missouri drainages where nonnative trout may be removed to help protect existing WCT populations, or to allow reintroduction of WCT. The need for additional WCT conservation projects is substantial, and with continued backing from the public and private landowners, and support from our partners, we anticipate a greatly

expanded conservation program over the next several years.

REGION 4 **NORTH CENTRAL MONTANA**

Missouri River Great Falls Area - Grant Gri-sak

This year marked the 29th year for trout population estimates on the Missouri River. In the Craig section the estimate of rainbow trout greater than 10 inches long was 2,818 per mile. The 29-year mean is 2,933 per mile. The largest rainbow sampled this year was 5.3 pounds and 23.3 inches long. Brown trout in this section were estimated at 569 per mile and the long term average is 579. During the trout estimates, biologists also sampled 137 walleye between 6 and 29 inches and 121 burbot between 10 and 27 inches long.

In the Pelican Point section the estimate was 1,706 rainbows per mile > 10 inches long. The 27-year mean is 1,506 per mile. Brown trout in this section were estimated at 482 per mile and the long term average is 364. Biologists also sampled 13 walleye between 5 and 29 inches long and 13 burbot between 8 and 26 inches long.

This year biologists completed a three year study investigating spawning behavior of rainbow and brown trout in the Missouri River. The results showed that 40-45% of all the rainbow and brown trout spawn in the Missouri River, which has a lower infection of whirling disease and is likely the reason this population has not felt the impacts of whirling disease as have other Montana rivers. One rainbow trout traveled a total of 324 miles over this three year period. The average number of eggs spawned by wild rainbow trout in the Missouri River trout fishery is estimated 6.6 million per year and can be as high 10.8 million.

The 2009 statewide mail-in creel survey showed the Missouri River from Holter Dam to Cascade was the number 4 fishery in the state with 102,891 angler days. Sixty three percent of anglers using this fishery were residents and 37% were non-residents.

Pelican Point Pond is an important fishery near

the town of Cascade that received 393 angler days in 2009, which is higher than the long term average of 240. This year biologists discovered a persistent but low population of black crappie in Pelican Point Pond. The largest crappie was 12.5 inches long. A small number of YOY crappie were sampled while seining. Biologists plan to add habitat structures to this pond in the coming years to help the production and survival of crappie. Largemouth bass continue to thrive, but spend most of the year in deep water zones of the pond. The lack of shoreline structure presents a challenge to anglers who must fish for bass in deep water for most of the year, except during spawning times when bass are in shallow water. The habitat projects proposed for this pond are intended to benefit largemouth bass by providing shoreline structure which should make the bass more available to anglers. The largest bass sampled in Pelican Point Pond was 18 inches and weighed 4.3 pounds.

The discovery of spiny softshell turtles in the Missouri River above Great Falls in 2009 prompted a trapping and tagging program in 2010. This year we trapped and tagged 6 turtles over 43 miles of river between Bird Creek and Sand Coulee Creek. The largest turtle was a female weighing 13.3 pounds with a shell measuring 17 inches long.

In late 2009, biologists investigated what turned out to be the first known population of freshwater jellyfish in Montana in a pond on an abandoned golf course near Great Falls. Subsequent investigations revealed that Montana

was one of only four of the 48 continental states where this species had not yet been reported. This species originates from China and has been unintentionally [but widely] distributed throughout the world by moving ornamental pond lilies from China that also contain jellyfish polyps. We suspect the golf course pond was stocked with lilies imported from China. At this time there is no evidence the jellyfish have spread beyond this pond, and we don't expect any ecological impacts from their presence.



A 13.3 pound spiny softshell turtle sampled from the Missouri River between Cascade and Ulm.

in the Missouri River downstream to safeguard the trout fishery. By early May, very high rainfall in the Jefferson River drainage caused the pendulum to swing to the opposite end of the spectrum and the Missouri River had its highest flow in 11 years. The peak flow this year was 18,000 cfs and there were nearly 4 weeks of sustained flow at 16,000 cfs. Past studies by FWP have shown that flows of 15,000 cfs for three days is sufficient to mobilize gravel, flush fine sediments and maintain clean gravel that is vital to insect production which trout depend on for feed.



Freshwater jellyfish sampled from a small pond near Great Falls.

Smith River

In 2009, biologists estimated the number of rainbow trout greater than 8 inches at 254 per mile, and the number of browns at 285 per mile. The 31-year average is 514 for rainbows and

313 for browns. The Smith River had higher than normal water flow this year. During the population estimates, the flow was 230 cfs which is over twice the average for this time of year for the past 14 years.

Trout implanted with radio transmitters in 2009 showed some interesting movements in the Smith River. In general, brown trout tended to stay localized in the upper reaches between Camp Baker and White Sulphur Springs. One rainbow trout moved from the Buckingham Bridge area to a spawning location 10.2 miles up Sheep Creek. Another rainbow trout from the Missouri River traveled 70 miles up the Smith River to spawn in Tenderfoot Creek and returned to the Missouri River. This fish traveled over 130 miles round trip in 70 days. After losing contact with a number of radioed fish, biologists expanded the search area and discovered two of the radio transmitters from Smith River rainbow trout approximately 30 miles west of the Smith River at the pelican nesting area on Canyon Ferry Reservoir. These fish were apparently eaten by pelicans.

The most recent angler use estimates showed the Smith River between Camp Baker and Eden Bridge had 16,379 angler days.

Belt Creek

Belt Creek is an important stream for anglers in central Montana. Since 1982 Belt Creek has averaged about 7,100 angler days per year and ranks number 85 out of 1200 fisheries statewide. The most recent angler use estimates showed there 9,367 angler days on Belt Creek. This year biologists conducted the third population estimate in the Sluice Boxes State Park. The estimate for rainbow trout between 8 and 19 inches long was 294 per mile, for brown trout between 8 and 21 inches long was 141 per mile, and for whitefish

between 9 and 20 inches long was 95 per mile. Populations of all three species were very close to the average. As with other streams in central Montana this year Belt Creek experienced high water flows into September. As a consequence, the population estimate was delayed by nearly six weeks until flows were low enough to access the creek. Angler reports indicate lower [below Riceville] Belt Creek is fishing exceptionally well for brown trout, rainbow trout and even cutthroat trout in late 2010, which is likely due to the sustained high water flow late into the year.

WCT – David Moser

WCT are the only native trout to the Missouri River drainage. First described by Lewis and Clark on the mainstem Missouri River near Great Falls, the species has since been relegated to headwater habitats and only occupies a small fraction of its original range (less than 4% of original stream miles in northcentral Montana). Because of past widespread stocking of non-native fishes, populations of genetically pure westslope can only persist upstream of fish barriers (e.g. waterfalls). Three fish barrier projects were constructed in 2010. Two of the projects were on state land and one was located on private land. In all these projects non-native fishes will be removed prior to stocking of westslope.

In 2000, a concrete fish barrier was constructed on Cottonwood Creek within the Beartooth Wildlife Management Area. The original barrier was undersized and a larger barrier was constructed in 2010 that would prevent upstream movement of non-native fishes during larger flow events. Funding for design and construction of the replacement fish barrier was provided through competitive grant from Future Fisheries Montana and PPL Montana. Non-native brook trout were removed with rotenone in 2004

and 2007. In 2009, approximately 5,000 eggs were collected from spawning native westslope



*Native WCT, Cottonwood Creek,
Beartooth Wildlife Management Area.*

FISHING NEWSLETTER 2011

in a separate Upper Missouri River tributary and hatched in Remote Site Incubators placed along the length of Cottonwood Creek. Surveys of fish stocked in 2010 indicated rapid growth and large sizes with one year old fish reaching lengths in excess of 9 inches. Additional transfers of native westslope will occur in 2011. Cottonwood Creek holds nearly 8 miles of highly productive fish habitat and provides for a unique opportunity to fish for Montana's state fish, in a pristine natural setting.



*Fish Barrier, Cottonwood Creek,
Beartooth Wildlife Management Area.*

A barrier construction project is also ongoing in the Highwood Mountains. Smith Creek, on private land, historically held WCT that have since been displaced by brook trout. The landowners approached FWP in hopes of restoring the westslope that they remembered fishing for as children. Funds for design and construction of a barrier were obtained from grants supplied by PPL Montana, Future Fisheries of Montana, and the National Fish and Wildlife Foundation. The Smith Creek barrier is currently under construction. After construction, westslope will be restored to the highly productive habitat in Smith Creek. The landowner was able to sign on to the Westslope CCAA. This agreement frees landowners from any potential regulatory restrictions should westslope ever be listed as a threatened or endangered species.

In 2010, a fish barrier was constructed on Lake Creek

in the Little Belt Mountains. Lake Creek runs into Crater Lake which was formed naturally by a large earth slide nearly 100 years ago. Since its formation, Crater Lake has filled with sediment and provides almost no overwintering habitat for the non-native fish that reside in Lake Creek. A fish barrier was constructed using rock filled baskets at the mouth of Crater Lake in 2010.



Crater Lake, looking downstream toward outlet.

The fish barrier will raise the level of Crater Lake several feet to near historic levels and will provide overwintering habitat for a planned restoration of westslope.

Lewistown Area - Anne Tews

Most reservoirs have had excellent water levels over the past two years, but winter-kill struck many small reservoirs in Northcentral Montana last winter. Ponds that had major or complete winter kill included the breaks ponds of South Fork Blood, Whisker Reservoir and Wolf Coulee Reservoir. This was a huge disappointment; largemouth bass fishing had been great in most of these ponds, with several anglers catching fish over two pounds. These ponds were re-stocked with largemouth bass in 2010. Bubs, Jakes, Payola and Drag appear to have made it through the winter of 2009/2010. Buffalo Wallow was not stocked this year. It has lost most of its



Upper Carter Pond.

capacity and the dam is partially breached. BLM plans to repair the dam in the near future. Rhoda Lake, a high mountain cutthroat lake in the Little Belts, winter killed for the first time in nearly 20 years. It will be re-stocked with WCT in 2011. The recently reconstructed Carter Ponds, both filled this spring and have been very popular with local anglers.

Bair Reservoir

Bair Reservoir, a few miles west of Martinsdale, had the highest October water levels since 1993. It typically has small rainbow trout. In recent years the fishery appears to be improving and it may be well worth a visit. Rainbow trout in gill nets averaged 12.4 inches (a record high) and were up to 2 pounds. Westslope cutthroat were up to one pound. White suckers had the lowest catch rates since 1995.

Martinsdale Reservoir

Martinsdale has been very popular and has provided excellent fishing since it filled last year. Water levels remained high throughout 2010. Brown trout over 6 pounds and rainbow trout up to 3 pounds were caught in gill nets. It was stocked with the scheduled 70,000 fingerling rainbow trout plus an additional 10,000 surplus, 5 – 9 inch, brown and rainbow trout. The brown trout will augment the wild browns that enter Martinsdale through the canal. Rainbow trout stocked in 2010 had an average weight of 0.77 pounds by late September and excellent fishing should continue in 2011.

Ackley Lake

In gill nets, rainbow trout catch rates were high with fish up to 1.6 pounds but averaging about 0.6 pounds. Large brown trout (up to 5 pounds) that enter from the canal were also caught. This state park now includes a dock by the west boat ramp during the summer.

Big Casino Reservoir (Casino Creek Reservoir)

Small numbers of fat rainbow trout up to 1.3 pounds and 14 inches were caught in gill nets. Perch numbers were down in gill nets, but most were in excellent condition. With an average perch weighing about 0.3 pounds, and a few up to 0.7 pounds, perch fishing should be good this

winter. Walleye were not caught by FWP staff and are now rarely seen here.

East Fork Reservoir

In East Fork, an average northern pike was about 22 inches from 2003–2009. This year the average northern pike was 20 inches long. The decline in average length was due to increased numbers of small northern pike. Of 17 northern pike caught during 2 gill netting periods, 9 exceeded 23 inches and 8 were less than 17 inches. This large gap in size structure was not previously observed here. The nine larger northern pike averaged 26 inches and 4.5 pounds and were up to 6 pounds. Yellow perch numbers in fall gill nets were the lowest seen in the last decade. FWP did not sample any of the 5000 largemouth bass stocked last year and anglers have also not reported them. High inflow from the high snowpack this year in the Snowy Mountains increased the turnover time in this reservoir dramatically. The City of Lewistown is tentatively planning to drain East Fork next year to make required safety repairs on the outlet pipe. The draw-down will have major impacts on the East Fork fishery.

Petrolia Reservoir

To diversify the fishery, 10,000 7.5 inch surplus rainbow trout were stocked in here in mid-June. They had grown to about 10.3 inches and 0.4 pounds by mid-September. This is the first time in nearly 30-years that Petrolia has held rainbow trout. Anglers generally reported poor fishing, but FWP gill netting indicated the fish populations are in good shape. Walleye were up to 6 pounds and averaged 17 inches and about 2 pounds, a record high, but walleye gill net catch (5 per net) was about 50% of the 10 year average. Yellow perch catch at 13 per net was a record high and similar catch rates have not been seen since the mid 1990's. Perch up to 12 inches (0.9 pounds) were caught as well as many around 6 inches. The northern pike gill net catch rate was slightly above average and the largest was over 7 pounds. Inflow and water levels at Petrolia have increased dramatically in recent years strongly influencing the Petrolia fishery. During the early 2000's the reservoir did not spill for about 5 years and was well below full pool. Low inflow/outflow during these years resulted in a slow reservoir

turnover time and gill net catch rates were generally high for small walleye. During these low water years, yellow perch and northern pike numbers plummeted. Several years of low water did result in extensive woody growth of shoreline vegetation, a rarity at Petrolia. Since about 2006 there has been some annual spill from Petrolia. In 2009 and 2010, Petrolia spilled for several months and reservoir turnover time was likely much higher than recommended for walleye. The recent high in-flows may result in many of the stocked walleye spilling down Flatwillow Creek. A small walleye was sampled in the Musselshell at the mouth of Flatwillow and two larger ones about 10 miles downstream this year. These were the only walleye caught by fisheries crews on the Musselshell in 2010, during sampling of the lower 100 miles. Downstream emigration of walleye could result in reduced predation on perch and may partially explain increased perch recruitment in Petrolia. High yellow perch numbers were also observed at Petrolia in the late 1990's, another high flow period.

Yellow Water Reservoir

By late September water levels had dropped to the minimum recommended pool level of about 11 – 12 feet deep, 2 feet less than last year. Rainbow trout continue to be the only species captured in nets and were up to nearly 22 inches and over 6 pounds this year. Fifty-six percent of the rainbow trout caught in gill nets exceeded 2 pounds.

Big Spring Creek

Big Spring Creek flows were high this year with October flows about 25% above the 10 year average. They were the highest seen in the last decade. Brown trout were generally at record high numbers. Trout greater than 10 inches had about average numbers on the lower creek and were above average upstream from Lewistown. Cage studies continue to show extremely high levels of whirling disease on Big Spring Creek, downstream of the confluence with East Fork.

FWRPs is coordinating with the Fergus Conservation District, TU and several other partners on a stream restoration project on Big Spring Creek on the north side of Lewistown. This project will

be similar to the one completed at Brewery Flats in 2001. This project will involve excavating a floodplain and building a meandering channel. It is currently in the planning and fundraising stage; an easement to the site was purchased in 2003. Many Lewistown residents recall fishing here prior to the 1961 straightening and are excited to see the creek meander through this area again. The 1961 work had so many impacts it was one of the main reasons the Montana Streambed Preservation Act ("310 Law") was enacted.

Musselshell River - Anne Tews and Derrick Miller

The lower 110 miles of the Musselshell River from approximately Melstone downstream to Crooked Creek Bay was the focus of a 2010 study. The Lower Musselshell was last intensively studied in the early 1980's and this is the first time ever that much fisheries work has been done on the lowest 70 miles. This poorly studied system suffered from serious dewatering in the early 2000's. Flows were often "0" and fish kills due to poor water quality were reported. Higher precipitation and the Musselshell River enforcement project has helped insure minimal instream flows in recent years. The last time the flow at Mosby was reported as "0" was in August 2006 and the FWP water reservation of 70 cfs has been obtained almost continually since ice-off in spring 2009. This year, the Musselshell's mean daily flow peaked at nearly 4000 cfs, the second highest in the last decade. After run-off, flows were well above average and exceeded 100 cfs for most of the year.

Sampling consisted of larval fish sampling at Mosby (rivermile 71) and on the Charles M. Russell Wildlife Refuge (rivermile 12) to assess reproduction and a combination of overnight hoop nets, setlines, seining, and trammel netting was used to evaluate the fish distribution and habitat use. Preliminary evaluation of larval fish samples indicates high numbers of eggs and larval fish representing many species. In addition to larval fish, nearly 1000 fish representing 17 species were sampled in the Musselshell. Soft shelled turtles were caught throughout the study area. Game fish included: channel catfish, walleye, sauger, and smallmouth bass. Channel catfish were the most common with over 500 fish



Two channel catfish sampled from the Musselshell River 2010.

sampled. On average, channel catfish captured in hoop nets measured 7.7 inches and 0.16 pounds and those caught on setlines measured 17.5 inches and 2.90 pounds. In general, channel catfish numbers increased the further downstream we sampled. Several channel catfish in excess of 30 inches and 10 pounds were captured on setlines and were found nearly 20 miles upstream of the Mosby Bridge. Walleye in the 15-16 inch range were sampled near Mosby. Small-mouth bass were sampled from rivermile 30 to rivermile 90 and averaged 9.5 inches and 0.50 pounds. Game fish 8 inches and larger were tagged and released. Anglers that take the time to return tags to FWP will help us understand fish movements within the Musselshell River and beyond. Work from the early 1980's indicates catfish in the Mus-

selshell often traveled long distances, greater than 100 miles, and used the Missouri River as well as Flatwillow Creek. The sole tag return this year was from a catfish that traveled from the Musselshell River thirteen miles downstream to Crooked Creek Bay in Fort Peck Reservoir, where it was caught and released by an angler. Due to the great number of adult channel catfish, a good water year, and successful reproduction, the Musselshell River should continue to be an outstanding warmwater fishery in 2011. We hope to do more work here in the coming years to better understand changes in the last 20 years and the importance of the Musselshell to the Missouri River/Fort Peck ecosystem.

Missouri River Reservoir Regulation Changes - Eric Roberts

After nearly a year and a half of workgroups, public meetings, and hundreds of public comments, new fishing regulations were finally adopted for Canyon Ferry, Hauser, and Holter Reservoirs. Regulations were changed in order to meet fisheries management goals outlined in the new Upper Missouri River Reservoir Management Plan. The plan was developed with input from an 18-member citizen workgroup and numerous written comments provided throughout the planning process.

The new management plan is adaptive in that different regulations may be proposed based upon population abundance relative to management triggers. If fish population levels exceed upper or lower trigger thresholds, then regulation changes may be proposed. You can learn more about population triggers and rationale for changes in the Upper Missouri River Reservoir Fisheries Management Plan 2010-2019 on the FWP web site at <http://fwp.mt.gov/fishing/management/upperMissouriRiverPlan.html>. Below is a summary of regulations that will be implemented on March 1, 2011.

Walleye

As usual, Canyon Ferry wall-eye were among the more contentious issues discussed



Canyon Ferry Reservoir rainbow.

throughout the management planning process. FWP data showed that the walleye limit needs to remain at a high level to maintain population numbers at a level appropriate for the amount of forage available; however, anglers also desired a better size structure with more 'eater sized fish between 15-20 inches. After much discussion and deliberation, the FWP Commission adopted a 10 fish limit with only 4 fish over 16 inches and 1 fish over 28 inches. Possession limit is twice the daily limit. We hope this new regulation maintains harvest at high enough levels to keep the walleye population in check, while protecting some of the larger fish desired by anglers.

Changes to the walleye regulations in Hauser reflect the effects of fish flushing from Canyon Ferry. The Hauser walleye population is currently too large relative to forage availability, therefore, walleye growth rates are slow and there are a lot of small walleye. To decrease walleye abundance, the daily limit has been doubled to 20 fish daily with only one over 28 inches. Possession limit is twice the daily limit.

Walleye limits are also increasing on Holter Reservoir. Much like Hauser, the Holter walleye population has been heavily influenced by flushing on Canyon Ferry. Growth rates for walleye have incrementally decreased as walleye numbers have increased. In an effort to increase walleye growth by lowering walleye densities, the walleye limit was increased to 10 fish daily, with only one fish over 28 inches and no harvest of fish between 20-28 inches. The 20-28 inch slot limit was left in place to maintain a trophy component to the fishery; that may be difficult given the changes in the fishery.

Possession limit is twice the daily limit.

Yellow Perch

A very conservative approach to yellow perch management in all the reservoirs was adopted in the new Management Plan. Perch are an important species in that they are the primary forage species for walleye and they were historically a vital component to the sport fisheries. Following walleye expansion in the 1990s, perch abundance has declined significantly and the sport fisheries have suffered.



A nice day's catch on Canyon Ferry Reservoir.

No changes to the Canyon Ferry yellow perch limit were proposed in the new Management Plan. The bag limit will remain at 15 fish daily and in possession. This regulation was originally adopted in 2005 after perch abundance dropped to historic record lows.

In Hauser, yellow perch limits have been dropped to 25 fish daily with no possession limit. Perch abundance in Hauser has historically been lower than the other reservoirs and a more conservative limit was deemed appropriate to conserve yellow perch as a forage fish and maintain some component of the sport fishery.



Holter yellow perch from fall population sampling.

In Holter, the daily limit for yellow perch has also been reduced. Historically, Holter was a destination perch fishery but has declined in recent years. Although walleye predation is likely more of a limiting factor for perch than angler harvest, it was determined that a conservative approach to perch management was reasonable. The new limit on yellow perch is 25 fish daily with no possession limit. Higher bag limits will be proposed if yellow perch numbers increase above established thresholds.

Northern Pike

Northern pike are a relatively new player in the system. To address recent increases in northern pike abundance all harvest restrictions were eliminated in the entire reservoir system. Northern pike have long existed in Canyon Ferry, but in very low densities. In recent years, reproduction in the reservoir has been evident and multiple age classes of pike have been captured. One pike was also documented in Hauser in fall 2009. Canyon Ferry, Hauser, and Holter are already for-age limited, and the addition of another predator may be more than the forage base can bear. After March 1, 2011 there will be no daily pike bag limit from Three Forks to Holter Dam.



Canyon Ferry northern pike, which are becoming more prevalent.

(long term winter average is 0.33 fish per hour) and well above average during the summer at 0.55 fish per hour (long term average is 0.28 fish per hour). Approximately 25 % of all anglers who fish Canyon Ferry specifically target rainbow trout. Rainbow anglers caught fish which averaged 18.9-inches (2.57-pounds) throughout the winter and 19.2-inches (2.72-pounds) from April to August 2010. Annual fall population surveys revealed a slight decrease from 2.7 fish per net in 2009 to 2.6 fish per net in 2010, which is below management goals of 5-6 fish per net. Canyon Ferry once again received its full stocking request at just over 300,000 fish (7-9 inches) in 2010. FWP will continue monitoring rainbow populations to achieve management goals and maintain this quality rainbow trout fishery.

The Canyon Ferry walleye fishery continues to be a popular destination fishery from early spring to late fall. Approximately 30% of all anglers who fished Canyon Ferry this year specifically targeted walleye. Angler catch rates decreased slightly from 0.42 fish per hour in 2009 to 0.28 in 2010; 0.25 fish per hour is widely regarded as excellent walleye fishing. Walleye abundance in fall population surveys increased from 2.6 per net in 2009 to 3.5 per net in 2010. Anglers continued to see slower walleye growth than historical rates due to forage limitations, but Canyon Ferry walleye are still some of the fastest growing walleye in the state. A trophy fish (>30 inches) component continues to be a big draw for walleye anglers on Canyon Ferry, but more smaller-sized fish appear to be recruiting to the good 'eater range around 15 inches.

In the spring, walleye are tagged to learn more about angler harvest, fish movements and other biological data. In 2010, FWP personnel tagged nearly 1,200 walleye with blue and yellow dorsal tags (FLOY tags). To put that into perspective, more walleye were tagged in 2010 with FLOY

Other Changes

The brown trout limit on Canyon Ferry has changed from 5 combined trout daily to catch and release only. Brown trout numbers in the reservoir have continued to decline over the past decade, and anglers felt additional conservation of brown trout may be warranted. Anglers 14 years and younger can still catch and keep one brown trout daily, regardless of size. This change also maintains consistency with brown trout regulations through the reservoir system.

Helena Area - Adam Strainer

Canyon Ferry Reservoir

2010 was a big year for Canyon Ferry Reservoir. A new management plan was implemented (for years 2010-2019), it regained billing as the #1 fishery in the state (over 130,000 angler days) and anglers did well during peak seasonal angling opportunities. Canyon Ferry continues to provide a quality year-round rainbow trout fishery, a popular late spring to fall walleye fishery and a trophy winter perch fishery.

Rainbow trout catch rates were slightly below average during the winter at 0.22 fish per hour

FISHING NEWSLETTER 2011

tags than in years 2005-2009 combined. If you catch a fish with a tag, contact any FWP office with your tag information (fish length, weight, location, etc...) and an angler correspondence letter will be mailed to you describing the tagging history of the caught fish. There are also still a few fish with \$75 reward tags swimming out there, so keep your eyes peeled and you might get a little extra cash out of your day of fishing.

Yellow perch were once again highly sought after in Canyon Ferry throughout the winter months. Despite historically low catch rates over recent years (0.28 fish per hour in 2010), anglers caught perch averaging 9.9-inches and 0.54-pounds. So, while the number of fish harvested was low, the fish were large. The annual population trend survey showed that perch abundance decreased from 2.4 perch per net in 2009 to 2.1 perch per net in 2010. However, the population appears to have stabilized over the past couple of years. FWP, in cooperation with the City of Helena, Broadwater County, Walleyes Unlimited and area civic groups, constructed and placed perch habitat structures in the south end of Canyon Ferry made from discarded Christmas trees. That project has been ongoing each spring for over 10 years now! The Christmas tree project would not be possible without area volunteers. If you are interested in volunteering in 2011, please contact the Helena Area Resource Office at (406) 495-3260.

Hauser Reservoir

The fishery in Hauser held steady in 2010, which is saying something considering many factors working against it. Hauser is heavily influenced by fish flushing in from Canyon Ferry and flushing over Hauser Dam during high flows. It can also be limited by water quality due to deep water releases from Canyon Ferry Dam late in the summer. However, even with these factors against it, Hauser is still capable of producing a quality

fishery.

Population monitoring in 2010 found that rainbow trout levels were still high with an average catch of 5.3 fish per net. The long-term average is 4.1 rainbow per net. These trends suggest that the current stocking rate of 50,000 wild strain rainbows in the summer and another 100,000 domesticated strains in the fall is working pretty well. Anglers are also seeing the benefits, with good catch rates throughout the summer and the ice fishing seasons. Generally, the average rain-

bow caught was between 18 and 19 inches and weighed around 2 ½ pounds. Angler catch rates for rainbows were highest in the spring, but the bite also picked up again in September and October with a lot of action at the Causeway and at Riverside below Canyon Ferry Dam.

Walleye abundance also remained at high levels in 2010. Walleye abundance in Hauser is strongly influenced by Canyon Ferry. Flushing flows over Canyon Ferry Dam typically correspond with emergence of pelagic walleye fry, so millions of tiny walleye

fry flush out of Canyon Ferry and downstream through the system. In Hauser, gillnet catch of 4.9 per net is 49% higher than the long term average catch. Anglers have also noticed the large numbers of walleye with good catch rates throughout the summer and fall. However, they have also noticed the poor growth rates of these walleye because there isn't enough forage in the reservoir to maintain the walleye population at these levels. In the summer of 2010, the average walleye caught was 13.1 inches and weighed just over ¾ pounds.

Yellow perch numbers in Hauser have always been lower compared to Canyon Ferry and Holt-er, but numbers remain very low at 0.7 perch per net (long term average is 4.9 per net). Perch production of YOY fish rebounded a little bit following record low production in 2009. This means there



Volunteer Cody Mitchell proudly holds a 13.3 lb. walleye from Canyon Ferry Reservoir while assisting FWP during annual spring sampling duties.

was a little more food available to feed the walleye in 2010, but that did little to supplement the sport fishery. Angler catch rates for perch were low throughout the winter and summer fishing season, with only 18 yellow perch observed in the winter and summer creel.

Holter Reservoir

Holter continues to be one of the most consistent fisheries in the Helena area. Rainbow fishing is arguably better than it has ever been—even better than the good old days! Population surveys show that rainbow trout abundance isn't incredibly high (current abundance is right at long term average), but the fish are highly accessible and susceptible to angling. In 2010, overall angler catch rates for rainbow trout was a phenomenal 0.48 fish per hour (0.25 fish per hour is typically regarded as pretty good fishing). In April, angler catch rates were 1.0 fish per hour. During the big bite in April, the average rainbow caught was just shy of 20 inches and nearly 3 pounds. It seems that Holter is reaping the benefits of the current stocking regime of 125,000 wild strain rainbows in the spring and 125,000 domesticated strains in the fall.



Good haul of rainbows and burbot (ling) from spring sampling on Holter.

Walleye abundance in Holter dropped about 47% in 2010, and that's not necessarily a bad thing. Much like Hauser Reservoir, Holter walleye numbers are influenced by walleye that flush downstream from Canyon Ferry. Since the Canyon Ferry walleye population expanded in the late 1990s, walleye abundance in Holter has been 68% higher than pre Canyon Ferry walleye. This has resulted in more predators than prey; in

other words, slow growth rates and lots of small fish. These small fish mean pretty good catch rates, as reflected by an angler catch rate of 0.29 walleye per hour in 2010. The average walleye caught in 2010 was 12.5 inches and weighed 0.6 pounds. However, there is still good opportunity to catch trophy fish. During spring and fall population surveys, FWP captured and released several walleye over 12 pounds.

Much like the other area reservoirs, yellow perch are near historically low levels. Once a very popular perch fishery, angler catch rates for perch remain near record lows in both the summer and winter. Perch abundance in fall gillnets increased from record low levels in 2009, but abundance is still 80% lower than long term averages. If increases in walleye harvest have the desired effects, we should see an increase in perch abundance over the next few years.

Helena Valley Regulating Reservoir

This popular kokanee fishery continues to be a conundrum for anglers and fish managers alike. Kokanee are known to be finicky and difficult to dial in with the correct depth, bait, time of day, among many other things. However, ice fishing in 2009 and 2010 has been really poor. Hoping to find some answers, FWP began testing a few different variables in 2010 to try to identify what's going on.

In spring 2010, FWP placed a screw trap in the irrigation canal below the Regulating Reservoir to see if freshly planted fish were flushing down the canal shortly after stocking. After a June plant of roughly 37,000 kokanee, we did see a handful of fresh plants over the next week—but not nearly the number that was expected. Only 66 kokanee were captured over the next 8 days, which represents only 0.2% of the spring plant. Another 37,000 kokanee were planted in the fall after the ditch was shut down, so there was no risk of flushing from the fall plant. The screw trap does not efficiently sample for adult fish that flush through the canal, but it does indicate that fish flushing directly after stocking is not a significant limiting factor.

One interesting trend was discovered during standardized population sampling in July. During

FISHING NEWSLETTER 2011

this sampling series, gillnets are set horizontally in the shallow areas of the lake, while other nets are fished horizontally in the open water areas. Typically about 20% more kokanee are caught in the open water areas compared to the shallow areas. Many years the open water nets catch 2 kokanee for every 1 caught in shallow nets. During 2010 sampling, more kokanee were caught in the shallow gillnets for the first time ever. This suggests that kokanee may be using habitats that were not utilized previously, or some other factor may be forcing them out of their preferred open water areas.



Screw trap in the Helena Valley Canal to evaluate flushing rate of fish from the Helena Regulating Reservoir.

Angler catch rates for kokanee improved over the summer of 2010, so hopefully that translates to better fishing over the winter. FWP plans to continue monitoring of flushing fish through the canal and influences of water quality and habitat changes in 2011.

Choteau Area - Dave Yerk

Tiber Reservoir

The future of Tiber's walleye fishery is looking more promising, and anglers and biologists alike are cautiously optimistic about the steady improvement this once forage-limited population is showing. Like most walleye fisheries, it all boils down to forage availability. Historically, Tiber has not produced adequate forage (primarily yellow perch) to keep the walleye population healthy. The past two years have been different,

however, as excellent perch and cisco production occurred in both 2009 and 2010. This sudden abundance of forage has already led to measurable improvements in the walleye population in this mainstem Marias River reservoir.



Yellow perch are the primary forage of walleye in Tiber Reservoir and Lake Frances.

The only drawback in the recent improved growth and body condition of Tiber's walleye population is the resulting reduction in their catchability; abundant forage means well fed walleye, which typically results in reduced angler catch rates. And since 'catching is reality' to most anglers, when catch rates are down they often assume the populations is down.

This situation is further confounded on Tiber because historically anglers have enjoyed very high walleye catch rates — commonly the highest of all the walleye fisheries in Montana. Thus, when catching success drops to more normal levels like it did in 2009 and 2010, the fishery is not meeting the expectations of some anglers and they presume the population has declined. The obvious solution is to stock walleye.

Tiber Reservoir is one of the few major walleye fisheries in Montana that is not stocked annually with walleye (Canyon Ferry, Hauser, and Holter reservoirs are the others). Although walleye were stocked into Tiber many years ago, no stocking has occurred since 1988 because natural reproduction has been sufficient to maintain the walleye population at adequate levels. Gill net surveys completed by FWP this past fall indicted Tiber's walleye numbers remain healthy with a

diverse population structure including large and small fish. Thus, the walleye are out there even though angler success has declined the last couple of years.

Avid walleye anglers have initiated discussions with FWP promoting the potential for stocking walleye into Tiber. Biologists must give serious consideration when stocking a top predator such as walleye; this can easily lead to a disruption of the predator-prey balance in the reservoir (see Lake Frances write-up for discussion on this) and result in a decline in the fishery. Maintaining this balance in Tiber is particularly challenging because production of forage fishes is so tenuous and inconsistent. Anglers often interpret FWP's conservative approach to stocking of walleye and other predatory fishes as a bias against these species. However, more is not always better when considering stocking more predators into a waterbody. Biologically, it is a challenging situation.

Lake Frances

Nowhere is the challenge of balancing walleye numbers with prey abundance more evident than on Lake Frances. The somewhat cyclical nature of these two components of the fishery can directly dictate walleye fishing success, and an apparent drop in walleye numbers coupled with abundant forage resulted in another tough year of fishing on Lake Frances in 2010.

Lake Frances remained 'forage rich' in 2010. Although perch production was at more normal levels in 2010, there was still more than ample forage available from the record high perch production that occurred in 2008. Even though these 2008 perch are getting larger (up to five inches in length), the bulk of Lake Frances' walleye population is large enough in size to effectively feed on them.

So all is well with the Lake Frances fishery? Not necessarily. Fall gill net monitoring indicated walleye abundance in the reservoir has dropped a bit. This likely will alarm anglers, as certainly their opportunity to catch walleye is better when they are more abundant. However, from a biologist's perspective, the decline in this population may actually help maintain the quality of this fishery in the long run.

Maintaining a healthy yellow perch population is critical to maintaining Lake Frances' walleye population; perch are the primary and preferred forage. Much to the concern of biologists, the abundance of adult yellow perch sampled in monitoring nets has steadily dropped off since 2004. In fact, adult perch numbers were at an all-time low in the 2010 nets, averaging just 0.5 perch per net. Meanwhile, walleye numbers averaged 4.3 per net. Biologically, it is not sustainable having your predator species at a density nearly nine times higher than your prey species. At recent high densities, it is evident the walleye population is effectively cropping off nearly all perch production before they reach adult sizes.

What can be done to bring the Lake Frances fishery back into balance? Mother Nature controls perch production in the reservoir. When the winter snowpack is good and spring rains plentiful, the reservoir rises quickly and floods shoreline vegetation that perch readily use for spawning substrate in the springtime. Perch production is always highest during good water years, and when the conditions are right they can produce very strong year classes. It just takes an ample number of adults to keep the cycle going.

Historically, walleye production in Lake Frances was inconsistent.

Because of this, FWP initiated stocking walleye fingerlings in 1997 to try and improve the population. Currently, the stocking program calls for stocking 100,000 fingerlings on even numbered years (thus, every other year). Since this stocking began, Lake Frances' walleye population has grown. It peaked from 2002



Fisherman on Lake Frances.

FISHING NEWSLETTER 2011

through 2005 when gill net catches averaged around 10 walleye per net. Even though walleye numbers have dropped since then, biologists are still not seeing an improvement in the survival of perch. This is at least partly attributable to the relatively large average size of the walleye in Frances; 58 percent of the walleye handled in survey nets are greater than 15 inches in length. These large fish have greater energy demands and are able to effectively forage on a broader size range of perch, thus few perch are safe in the reservoir.

The Lake Frances fishery proves to be a management paradox. Walleye anglers are realizing less success and question the health of the population. In fact, some anglers would like FWP to stock more walleye in the reservoir to try and improve their fishing success. Biologists, on the other hand, are justifiably nervous about the long-term persistence of the perch population and realize that predation pressure on perch has to be reduced to maintain a healthy forage base. The easiest way to do this is to reduce the number of walleye currently stocked. Obviously, this would not be popular with anglers.

Bynum Reservoir

Anglers continued to enjoy excellent rainbow trout fishing on Bynum Reservoir throughout 2010. Located about 15 miles northwest of Choteau, this reservoir was once a popular walleye fishery until drought conditions resulted in the reservoir being drawn down to dead storage for several years beginning in 2004. Very few fish were able to survive these conditions except for a few lonely yellow perch and suckers.

Good precipitation in 2008 resulted in the reservoir filling over half-way to full elevation, which provided the opportunity to stock Bynum with

fish once again. Because there were essentially no forage fish remaining in the reservoir to support a walleye fishery, biologists opted to stock rainbow trout. Rainbow trout grow very quickly in the productive reservoirs on the Rocky Mountain Front (up to an inch a month), and they grew even quicker in Bynum because there essentially was no competition for food or space from other fish in the reservoir.

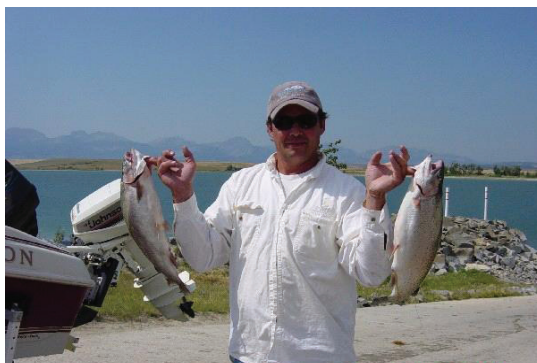
Currently, Bynum Reservoir is providing the best rainbow trout fishing on the Rocky Mountain Front, particularly for large fish. Rainbow trout

between five and seven pounds are commonly caught, with lunkers up to 12 pounds reported by anglers. Trollers and those fly fishing from a boat or float tube are having the best luck, although shore anglers also enjoy decent success in the spring and fall.

Bynum anglers can expect a couple more species to show up on their lines by next summer. Over 100,000 kokanee salmon were stocked into Bynum in 2009. Few anglers reported catching many this past year, but that should change in 2011. Fall gill net sampling indicated very good survival of this plant, and these fish averaged about 12 inches in length as yearlings. Anglers can expect them to be upwards of 15 inches by next summer. Anglers can also expect to start catching yellow perch in Bynum. Their numbers are slowly increasing, and those produced in 2008 will be large enough to provide some action next summer.

Pishkun Reservoir

The fish community in Pishkun Reservoir has recently undergone some changes. Historically, this off-stream irrigation reservoir in the Sun River drainage was a popular northern pike fishery that occasionally produced some trophy-sized



Bynum Reservoir produces excellent-sized rainbow trout.



Bynum Reservoir is producing large rainbow trout for anglers.

fish. In more recent years, the northern population has been dominated by smaller fish due to limited availability of forage to keep these aggressive predators fed. Thus, there has not been an ideal balance between the number of predators and available prey (primarily yellow perch) in the reservoir.

Management of the water elevation in the reservoir during 2007 and 2008 appears to have inadvertently resulted in a reduction in the number of pike in the reservoir. Irrigation demands resulted in the reservoir being drawn down about 28 feet going into the wintertime in both 2007 and 2008. During most years, the reservoir is drawn down eight feet from full pool following the irrigation season.

Northern pike spawn in the spring soon after ice out and generally seek out vegetation for spawning substrate. Because of the excessive drawdown in 2007 and 2008, the reservoir was low enough each of the following springs that the northern pike apparently did not have access to suitable spawning habitat.

Recent sampling has indicated northern pike numbers have dropped in Pishkun. This is likely attributable to poor production in 2008 and 2009 because of the low springtime reservoir elevations those two years. Although this may seem like bad news if you are a die-hard pike angler, it likely will lead to improved growth rates of the remaining pike population. Additionally, survival of stocked rainbow trout has greatly improved and anglers are having good success fishing for nice-sized fish. A few anglers are also starting to key in on Pishkun's kokanee salmon population. FWP stocked 100,000 kokanee in 2009 and they will be reaching catchable size in summer 2011.

Boat anglers heading up to Pishkun in the late summer or early fall should check the water elevation in the reservoir before towing their boats up 17 miles of dirt road from Choteau. Current water elevation information is available on the Bureau of Reclamations website: <http://www.usbr.gov/gp/water/rflow.cfm>

Or, anglers and boaters can get current conditions by calling the FWP office in Choteau at 406-

466-5621.

Nilan and Willow Creek Reservoirs

Rainbow trout anglers on both Nilan and Willow Creek reservoirs can expect improved fishing in the near future. These two off-stream irrigation reservoirs in the Sun River drainage have historically provided excellent rainbow trout fishing and were once popular fisheries for boat and shore anglers alike. However, in recent years fishing has been slow on both reservoirs due to poor survival of hatchery plants.

Biologists and hatchery managers have worked closely to try and improve fishing success on Nilan and Willow Creek reservoirs. Some of the changes recently made in the stocking program for these two reservoirs include: 1) stocking rainbow trout fingerlings earlier in the summer to coincide with zooplankton blooms to provide optimal growing conditions for the stocked trout; 2) planting these fish late at night to minimize depredation losses to gulls, cormorants, and pelicans; and 3) stocking additional rainbow trout when surplus fish are available from the state hatchery system.

Some of these changes may be working. Fall gill net sampling completed on both Nilan and Willow Creek reservoirs indicated good survival of the 2010 plant, meaning anglers should start to notice improved fishing by summer 2011. Although these fish are going to be relatively small (about 12 to 14 inches in length) by summertime, biologists also sampled several older, larger rainbow trout in each reservoir that surely will interest anglers. Several of these fish topped five pounds, which indicates the productivity of these reservoirs.

REGION 5

SOUTH CENTRAL MONTANA

Western Portion - Jeremiah Wood

Cooney Reservoir

While Cooney Reservoir continues to support a mixed fishery for rainbow trout and walleye, a new fish species is beginning to emerge on the scene. Burbot, commonly known by local anglers as ling, began showing up in our electrofishing

and gill netting surveys just a few years ago. This freshwater cod fish is native to the Yellowstone River system, but did not previously exist in Cooney. The origin of the ling in Cooney is uncertain, though these fish may have been inadvertently introduced through the stocking of walleye beginning, possibly, as early as the 1980's. FWP surveys and angler reports indicate that ling have become established in Cooney and their abundance has been increasing each year. Because none of our conventional fish survey methods were efficient in capturing ling, we began experimental angling in 2009 to get a better handle on the ling population in Cooney. Using approximately 50 tip-ups with baited lines through the ice at night during ling spawning season, we were able to capture 17 ling in 3 nights in 2009, and 26 ling with the same amount of effort in 2010. Fish ranged widely in size and age, and data show that the ling population is relatively new and appears to be expanding. Diet items consisted almost entirely of crayfish, which are abundant in Cooney but are also an important walleye food item.

Some anglers have already begun to target ling in Cooney, and a popular sport fishery may begin to develop. Declining ling numbers in the Yellowstone River have apparently created a local demand for this sportfish that is not being met. Continued monitoring of Cooney's ling population will be necessary to help guide future management.

Lower Deer Creek

YCT restoration efforts continue in south central Montana, with the Lower Deer Creek project in the forefront. Lower Deer Creek is a tributary to the Yellowstone River near Greycliff, MT that contains an indigenous population of YCT whose persistence is threatened by invasive brown trout and rainbow trout. Historically, brown trout have caused the reduction of YCT distribution throughout the drainage. More recently, rainbow trout have begun to interbreed with the Lower Deer cutthroats, which threatens to compromise the genetic integrity of this population. In 2007, a plan was devised to build a barrier to fish passage and re-establish a genetically pure YCT population above this barrier using chemical reclamation to remove brown and rainbow

trout. The project was delayed until funds were acquired and access through private land was secured in early 2010. The fish barrier is expected to be completed in the fall of 2010 and chemical reclamation should begin during late summer of 2011. The project is expected to result in a secure, genetically pure YCT population throughout over 12 miles of stream, the largest protected reach of YCT habitat in the Yellowstone River drainage.

Upper Boulder River

In the upper reaches of the Boulder River, which flows over 50 miles before joining the Yellowstone River in Big Timber, tremendous potential for YCT restoration exists. The Boulder River fishery can be separated into three distinct reaches. The lower river, between Big Timber and Natural Bridge Falls, contains healthy populations of rainbow and brown trout. Above Natural Bridge, which blocks fish passage, rainbow and brook trout dominate the fishery upstream to a waterfall near Hells Canyon. Above Hells Canyon falls, many miles of stream and tributaries are occupied by a mix of rainbow trout, YCT, and various stages of hybrids between the two species. Because the area above Hells Canyon does not contain brook trout or brown trout, and rainbow and cutthroat trout easily hybridize here, potential exists to use hybridization and genetic swamping to promote the recovery of a genetically pure YCT population. Recent surveys by FWP biologists have identified various habitat features, fish distribution, and genetic composition of the fish population in the upper Boulder River. Future plans include chemically removing rainbow trout in specific parts of the drainage and using genetic swamping to replace rainbow trout populations with YCT. While it will likely prove to be a long process, establishing a large, interconnected population of YCT in the upper Boulder River would be greatly beneficial to the long term persistence of YCT rangewide.

Eastern Portion Region 5 - Mike Ruggles

Bighorn River Upper Reach

Water continues to be an issue on the Bighorn River as a balance between reservoir elevations and river flows is sought. The wet cycle continued in 2010, however, much of the mois-

ture was in late winter snow and rain events. Snowpack was poor through much of the winter of 2009/2010. This accounted for discharges dropping below the recommended minimum flow of 2,500 cfs between February 12th and May 4th, with the lowest daily mean flow recorded on March 5th at 1,981 cfs. In May the flows increased from a low of 2,244 cfs to a high of 9,501 cfs as a response to the late snows and rains. In retrospect, flows could have been maintained at or above 2,500 cfs through the February to May period, which would have better maintained brown trout redds and provided additional area for rainbow spawning. A daily mean peak discharge of 9,992 cfs occurred on June 23rd, 2010.

Releases beginning the 2011 water year in October 2010 have already been established below 2,500 cfs in an effort to save water to maintain high reservoir elevations through the winter and into the spring of 2011, although the reservoir started the year with above average storage.

Population estimate sampling was conducted in both the upper and lower reaches of the Bighorn River in 2010.

The upper section sampling started June 11th and ended June 30th. Adult rainbow over 14 inches were estimated to be slightly over 2,000 per mile which is nearly 1,000 fish per mile lower than the 2009 estimate but still above average when comparing data from 1986 to the present. Adult brown trout over 13 inches were estimated near 1,000 fish per mile which is a reduction of about 500 fish per mile from 2009. A good 2009 year class of brown trout continues to show promise with many 5 to 7 inch fish being captured. Insufficient recaptures precluded making a valid estimate for these smaller fish.

The lower section sampling started September 9th and ended on September 24th, but these data have not yet been analyzed so population estimates are not available for this report. It appears from the data sheets sufficient rainbow

were captured to provide an estimate for adults. A low number of recaptures for browns may preclude a good estimate; however a substantial number of brown trout between 9 and 11 inches from a strong 2009 year class were captured. If river flows are maintained near or above 2,500 cfs during the rainbow spawn, recruitment in 2011 could be more successful than occurred during the past 2 years of water management.

Bighorn River Lower Reach

Sampling was conducted below Two Leggins and Arapooish FAS on the Bighorn River in the spring and summer of 2010. The goal was to begin monitoring catfish, sauger, and ling populations. Sauger were not captured during either period. Numerous catfish were sampled with average lengths greater than 20 inches and weights averaging near 4 pounds. The largest catfish sampled was 26.7 inches. Several ling were caught during the spring sampling. Other species captured include rainbow trout with an average length of 17 inches, brown trout, most of which were a product of the good 2009 year class, a few smallmouth bass, and other assorted native species of minnow and suckers.



Shocking boat in a snow storm going to Ok-A-Beh in May.

Bighorn Lake

Snowpack for Bighorn Lake was low and snow-melt was delayed followed by late winter and spring snow and rainstorms. At the start of the 2010 water year in October 2009 the reservoir was slightly below full pool at 3,639 mfsf. Low snow pack and minimal inflows resulted in the reservoir reaching its lowest point on February 24th, 2010 at 3,628 mfsf at which time discharges were minimized to the river and the reservoir slowly filled until June when inflows substantially improved. The reservoir reached peak elevation on the 4th of July at 3,645.6 mfsf. The reservoir was in the exclusive flood pool for 40 days resulting in flooded facilities at Black Canyon campground as well as creating problems with existing infrastructure on other National Park Service facilities in the reservoir.

Sauger and walleye populations continue to produce good fishing at times along with smallmouth bass and catfish, with occasional brown trout and ling bring caught. Anglers have indicated sporadic success but when they found the fish it was typically very good fishing. Data for the 2010 sampling has not been entered as of reporting time. Survey work included 2 series of nets in the spring and fall in addition to electrofishing at Ok-A-Beh in April and May. Items of interest include the capture of 3 shovelnose sturgeon with one coming from a net in Black Canyon. A substantial number of small walleye were captured during spring electrofishing at Ok-A-Beh, genetic tests indicated these fish were triploid fish from the 2009 stocking event. It appears the fish had relatively good survival for the first winter. Walleye and sauger were sampled for genetic and fish health evaluations in October of 2010. Results of those tests will be available for next year's report.

Triploid/sterile walleye fingerlings were stocked into Yellowstone Reservoir for the second time in 2010. Sterile walleye are being requested for Yellowstone in an effort to reduce the potential of walleye and sauger hybridizing and thus preserve pure sauger stocks in the Bighorn River in Wyoming. The Fort Peck Hatchery staff produced 100% sterile walleye, congratulations to the staff for their hard work. 122,154 advance walleye fingerlings with an average size of 1.8 inches were stocked on July 27th at Ok-A-Beh. Additionally 14,364 2.6 inch rainbow trout were stocked on April 27th at Ok-A-Beh.

Yellowstone River (Laurel to Confluence of the Bighorn River)

Sampling was initiated in March of 2010 to evaluate the ling population in the Yellowstone River. Hoop nets were used to collect fish. All ling captured were tagged and released. If anglers catch tagged ling or other fish please report your catch to the regional office. Information to include:

the tag number and color, the area and date it was caught, if the fish was release (please leave the tag in if you release the fish) or harvested, if possible the length and weight of the fish. Catch was low but small ling less than 10 inches and ling larger than 22 inches were captured. This indicates there is some successful spawning occurring in the Yellowstone. Plans are in place to repeat this effort in 2011.

Effort to better understand sauger in the Huntley Dam to Bighorn River confluence section of the Yellowstone was continued in 2010. The sauger telemetry done several years ago indicated the area around Huntley/Worden is populated by

adult sauger and they remain in the area and don't disperse as much as sauger in the lower Yellowstone and Missouri Rivers. This indicated a spawning population exists in the mid-Yellowstone and some of these mature sauger were sampled in 2010. No YOY sauger or small immature sauger were collected in this reach of the river in 2010. It appears sauger may be rearing in the lower river and returning to this section as adults. This assumption was validated by one sauger recaptured during this springs effort. This particular sauger was originally

tagged near Miles City on August 20th, 2003 at 10.3 inches and 0.4 pounds. It was captured below Huntley during the spawning period in May, 2010 and was 17.5 inches, and 1.85 pounds. This fish most likely was 2-3 years old at tagging and it was recaptured 7 years after the original tag was implanted making this fish about 10 years old. Genetic samples sent in as part of a Montana/Wyoming study based out of the University of Montana preliminarily found all the sauger sampled in this area were pure sauger and also were unique when compared to 18 other spawning congregations scattered over Montana and Wyoming on the Missouri, Yellowstone, and Bighorn Rivers. More effort is needed to understand this population of sauger.



Brad Olszewski, FWP technician, holding an 11 pound walleye caught and released in Yellowstone Reservoir.

In September 2010 an effort to capture channel catfish was conducted as part of the annual survey of the Captain Clark FAS area. One hundred and thirty-four catfish were captured and tagged. These fish averaged 20.2 inches and 3.8 pounds. The largest catfish was 29.5 inches and 10 pounds. One captured catfish was previously tagged in 2008 when it was 21.8 inches and 4.4 pounds. It grew nearly 4 inches and 2.2 lbs to 25.6 inches and 6.6 pounds. This catfish was initially tagged near the Bundy Bridge and was recaptured approximately 17 miles downstream near Captain Clark FAS. One hundred and twenty-two smallmouth bass were captured with an average length of 9.2 inches and an average weight of 0.8 pounds. The largest bass was 15.4 inches and 2.5 pounds. Walleye and sauger were not captured during this survey. Other species captured included native minnows and suckers and introduced carp and bullheads.

Huntley Diversion Dam may be a limiting factor to passing sauger above this reach. Efforts with local landowners, the US Fish and Wildlife Service, the US Bureau of Reclamation, and MT Fish Wildlife and Parks are underway to repair the fish bypass channel around this dam which should improve passage for sauger and other fish species. Funds have been allocated and it is anticipated repairs should be completed after high water in 2011.

Musselshell River - Mike Ruggles

The Musselshell River had an above average water year in 2010. The previous 2008 and 2009 water years also provided good flows which may have provided additional spawning area for brown trout in the upper reaches. Brown trout fishing improved in the Selkirk Fishing Access Site area but was still somewhat sporadic for anglers. Electrofishing survey work in the spring of 2010 indicated a much improved fishery with both YOY fish and adult brown trout being captured. Captured fish ranged from 4 to 23 inches long. Over 400 brown trout per mile were estimated in this section of the Musselshell with most fish being less than 10 inches in length. This estimate included about 45 brown trout per mile larger than 11 inches. This compares to the two previous years when only 17 trout were collected during the electrofishing survey in each year,

and no population estimates were possible. Size structure of the brown trout population should improve with yet another good water year on the Musselshell River in 2010.

In the lower reaches good catfish fishing was reported in the Melstone area. The improved water conditions the past 3 years may have allowed catfish and other species to move up the lower river to populate the Region 5 section of the Musselshell.

Deadmans Basin Reservoir

This year, for the second year in a row, Deadmans Basin Reservoir was filled. Nearly 100,000 kokanee and 200,000 rainbow trout were stocked into Deadmans during both 2009 and 2010. Data from the 2010 spring netting has not been analyzed and fall sampling has been delayed by wind. The tiger muskie state record was broken in 2010 with a 30-pound, 48.38-inch fish caught in Deadmans by Jesse Sanchez of Billings on May 15th. No tiger muskies were captured in the spring netting series this year. An inability to capture smaller muskies since they were last stocked into Deadmans in 2006 appears to indicate poor recruitment from that stocking. In October of 2010 tiger muskie became available for the first time in 4 years. The 799 tiger muskies allocated to Region 5 were stocked into Deadmans. These fish averaged nearly 9 inches in length. Muskies are great at reducing white sucker populations, which in turn, improves the growth of kokanee and trout while at the same time providing a unique fishing opportunity.

Lake Elmo

Lake Elmo provided many hours of fishing this past year for kids and adults alike and continues to produce some good catfish, rainbow and cut-throat trout, and occasional nice sized crappie and yellow perch, along with an abundance of smaller perch. Past netting captured plenty of white suckers, which is the reason tiger muskies were stocked in 2006 and 2007. Seven of these stocked fish have been captured in nets since stocking with one whooper at 3 years old and already 31.5 inches and 9 pounds being caught in 2009. This fish was released in great condition. Growth like this has to come from eating lots of white suckers and smaller crappie and perch. In

2007, the 5 muskies caught from the 2006 stocking averaged 23 inches and 3 pounds. The 2010 data has not been entered, but a strong population of white suckers continues to dominate trap net catches. A floating island was added to Lake Elmo as an experimental attempt to provide cover for minnows. Increased forage abundance might improve the average size of perch and crappie in the lake.

Broadview Pond - Mike Ruggles

Broadview Pond was on its way back as a nice community fishery, after years of drought. However, in the winter of 2010 the pond was hit with severe winter kill. Hundreds of fish were seen dead on the banks as the ice went out although few larger bass were reported being caught later in the summer indicating some fish survived. The stocked bass had started to naturally reproduce and growth on the stocked fish had already produced fish over 1 pound in just a couple of years. Bass were restocked this past summer as well as catchable YCT and fingerling rainbow trout. Several fishing organizations in Billings are interested in setting up windmills to limit future fish kills. FWP will monitor dissolved oxygen this winter to evaluate the need for windmills. This was the first large scale fish kill documented at Broadview.

Arapooish Pond

Arapooish pond winterkilled in 2009 and was restocked that year. The aeration system appeared to have failed during the winter. Repairs were made but it didn't operate as desired leaving us to believe it may have winterkilled in 2010. Sampling in the summer of 2010 indicated hundreds of bass survived and no indication of winterkill was found. The aeration system continues to be improved. Anglers indicated they had great fishing but the bass they caught were small. The size structure of the bass should continue to improve as long as winterkill

doesn't intervene.

Lake Josephine

A limited winterkill was documented at this heavily used urban pond. Survey work in 2010 indicated bass and small sunfish as well as large numbers of white sucker dominate this fishery. Tiger muskie stocked in 2006 were reportedly caught by anglers and released. Additional tiger muskie could be used in this pond.

Pryor Mountain Yellowstone Cutthroat Restoration Efforts - Mike Ruggles

Crooked Creek

Crooked Creek in the Pryor Mountains contains the eastern-most core population of indigenous YCT left in their historic range. Fire and subsequent rainstorms altered the creek allowing brown trout to invade the isolated YCT in the early and mid 2000's. Effort to remove brown trout and create a new barrier started in 2004-2006 and in 2008 a permanent barrier was in place and a rotenone project was completed above the barrier to remove fish. Extensive sampling in 2009 and 2010 above the new permanent



FWP, USFS, and BLM crews backpack shocking in Crooked Creek.

barrier indicates this project has been successful. Brown trout were not found above the barrier and a few YCT had begun colonizing the rehabilitated area. Young YCT were not captured in 2009 or in 2010. Sampling is planned in 2011 to evaluate if additional recruitment is occurring from upstream or if natural reproduction occurred in 2009 or 2010, and to ensure brown trout have been eradicated from this reach. Invertebrate populations were visually inspected and abundant stonefly, mayfly, caddisfly and dipterans were found. It appears the invertebrate community has recolonized well since the treatment. Brown trout were captured immediately below the barrier with both large adults and YOY brown trout being sampled.

Dryhead Creek

Dryhead Creek in the Pryor Mountains was evaluated in 2010 to determine if YCT survived after being restocked in 2001. This is a small creek that was stocked with 25,000 rainbow in 1934 followed with stocking of cutthroat in 1941, 1945, and 1948 with 4,662, 30,000, and 29,400 fish respectively. Surveys in the late 1990's and early 2000's indicated the fish had not persisted. In 2001, 1,000 YCT were stocked along with using egg incubators to rear and release YCT fry as they emerged. The survey this summer found these cutthroat have persisted with fish ranging in size from 7 to 11 inches with an average size of the 16 individuals captured being 9.2 inches. The entire area planned for survey was not sampled in 2010 so additional sampling is planned for 2011 to complete this survey. Scale samples were taken from the fish to determine the age structure of this population.

Sage Creek

Sage Creek in the Pryor Mountains was historically a YCT stream but cutthroat had been extirpated from the stream by overexploitation and competition with rainbow and brook trout. In 2010 the removal of brook and rainbow trout was initiated. This was a very large project involving many private landowners, the Crow Tribe, USFS, USFWS, BLM, Bureau of Indian Affairs and FWP. This project would not have been possible without the incredible understanding and patience of the landowners who owned land along Sage Creek where most of this project took place as well as the assistance from other agencies which provided staff and materials. They made this project a pleasure to work on, thank-you. Including all of the forks and main stem over 30 miles of the Sage Creek drainage was treated with Rotenone and detoxified over a period of 1 week in September. Additionally a 1.5 mile reach which was isolated due to summer base flows was treated separately in October over a 3 day time period. The lower section has several ponds and contained a small number of brook trout that

may have had an opportunity to get upstream with high spring runoff. A dam on private property currently provides an upstream fish barrier at the lower end of the treatment section, however this dam is decaying. Future work is planned to secure this dam to prevent upstream movement of any trout that may persist downstream.



Large walleye collected in trap nets during the 2010 walleye spawn.

Shortly after the treatment YCT were stocked back into Sage creek. A total of 4,536 fish were stocked into the upper treatment area, all were adipose fin clipped to demonstrate origins from the hatchery. It will take 2 more years for these fish to mature and begin spawning in the wild. An additional 1,051 fish were stocked in the lower reach. It is planned to continue stock-

ing fish to develop this recreational YCT fishery over the next 2 to 4 years. Sage Creek will be surveyed annually during this time period to determine if full removal of brook and rainbow trout occurred and to document how the cutthroat trout respond in the creek. It is anticipated natural recruitment will occur and stocking would cease in the future.

REGION 6 **NORTHEAST MONTANA**

Fort Peck Reservoir - Heath Headley

Water levels for Fort Peck Reservoir continued to rise in 2010. Reservoir elevations rose nearly 15 feet from April into July thanks to slightly better than average snow pack in the plains and generous amounts of spring precipitation. Since then, water levels have stabilized and are forecasted to decrease slightly throughout the winter months. With the increase in water levels during 2010 came large-scale flooding of shoreline vegetation much like it did during 2009. However, the amount of surface acres gained nearly doubled from the previous year of 17,000 acres to 33,000 acres (roughly the size of Canyon Ferry!). This inundated shoreline vegetation provided a tremendous amount of new spawning and rearing

FISHING NEWSLETTER 2011

habitat to a variety of fish species. Additionally, this newly flooded shoreline adds valuable nutrients that increase overall lake productivity and benefit the entire Fort Peck Reservoir fish community.

Thanks to all the volunteers that assisted with the 2010 walleye spawn!

The walleye spawn of 2010 was closer to “normal” than the record setting egg take of 2009. A gradual warming trend developed shortly after ice out but cold fronts pushed through the area during the peak of the walleye spawn. This hindered walleye from cruising the shoreline areas in the Big Dry Arm of Fort Peck. The end result was 85 million eggs which provided enough eggs to fill the rearing ponds at both Fort Peck and Miles City Fish Hatcheries. The final walleye stocking numbers into Fort Peck Reservoir for 2010 were 28.6 million fry and 2.4 million fingerlings. As most know this operation requires a strong volunteer program in order to be successful. If anyone is interested in assisting with the walleye egg-take in April, please call (406) 526-3471 to join the other volunteers that participate annually. It's a great way to learn more about the walleye fishery, see large walleye, and be part of the statewide egg-take that benefits other Montana walleye fisheries.

Walleye population abundance and size structure continues to show signs of improvement. FWP measures walleye relative abundance by the number of fish per net captured in annual standardized sampling gear (gillnets). In 2010, walleye relative abundance increased slightly from 3.3 (2009) to 3.6 in 2010. Walleyes in the 15 to 20 inch range were the most abundant due to good survival of the 2005 year class of fish. Additionally, anglers can be encouraged to know that a good number of walleyes in the 24 inch plus category continue to be measured during these sampling efforts. During the July-August sam-

pling, walleye were found to be more abundant in the Hell Creek to Rock Creek areas of the reservoir. Similar to 2009 reports, walleye anglers had good success fishing the newly flooded vegetation that attracted shoreline forage fish, which in turn attracted small to medium sized walleye.

If the walleye aren't cooperating then anglers should try their luck for some northern pike or smallmouth bass. Northern pike populations are starting to grow as the newly flooded vegetation has offered some excellent spawning and rearing habitat in 2009 and 2010. Smallmouth bass populations continue to expand throughout the reservoir as indicated by our sampling surveys. Anglers should expect decent catches of small to mid-sized fish but also have a shot at others up to 18 inches.



Black crappie from one of the many ponds in Region 6.

Seining surveys were difficult again this year due to the flooded thistles, salt cedar, willows, and grasses that limited the number of fish we were able to capture. However, it was evident that this provided good cover for some of the shoreline forage fish. This includes YOY crappie, yellow perch, spottail, and emerald shiners. This is encouraging because these four species comprise a large portion of the diet for smaller predatory fish like walleye, northern pike,

and smallmouth bass. Seine hauls did indicate that yellow perch, spottail shiners, and crappie had one of their most successful spawning years since the mid to late 1990's when water levels were on the rise.

Cisco reproduction fell from record production in 2009 to with 70 YOY per net. This was a substantial decrease from the record year class of 274 cisco per net in 2009. Record production of 2009 can be attributed to earlier ice cover on the reservoir and stable water levels during the winter months. Early ice cover decreases wave action that causes sediment to cover eggs resulting in mortality. Severe decreases in water levels during the winter months can dewater the eggs resulting

FISHING NEWSLETTER 2011

in a large loss of a year class. Good cisco production over the past couple years is encouraging as these fish are the predominant forage base for chinook salmon and lake trout, but are also utilized by larger walleye and northern pike. Many anglers have discovered that targeting the deep-



Yellow perch caught during one of the many kids fishing events in Region 6.

er/open water areas during the summer months can be very productive for these large predators.

The chinook salmon program is continuing to show signs of a rebound. In 2010, 168 female salmon were spawned yielding approximately 610,230 green eggs. This was the most eggs collected since the salmon program began over 20 years ago. The good return was comprised of healthy three and four year old females that averaged in the mid teens with some up to 25 pounds. Anglers should see decent numbers of three to four year old salmon in 2011. This year, 167,767 chinook fingerlings were released into Fort Peck with 143,966 spring-stocked at five inches and the remaining 23,801 were fall stocked at 7 inches. Increased size at stocking, improved water levels, and an abundance of cisco have all been playing a crucial role in the growth and survival of the Fort Peck salmon fishery.

It appears that a majority of the lake trout population is comprised of larger, older individuals. These individuals were likely a result of the high water conditions, which offered a greater amount of suitable spawning habitat, during late 1990's. However, some limited reproduction has taken

place the last few years as determined by age and growth information collected during annual surveys. Average weight of lake trout captured continues to hover around nine pounds. Some lake trout in Fort Peck have been aged up to 30 years old. In an effort to determine harvest on these old, slow-growing fish, the lake trout tagging program continued in 2010. If you catch a lake trout or any other tagged fish in Fort Peck, please record location of capture, size (length and weight if possible), date caught, tag number and color. After recording the information please call (406) 526-3471 or contact any regional office and they can supply us with the given information. Thanks to all you anglers that have reported tagged fish! This is an important part of fisheries data as it provides insight into movements, harvest rates, and growth that allow us to better manage this world-class multi-species fishery.

Havre Area Fisheries - Cody Nagel

Fresno Reservoir

Fresno Reservoir once again remained a top destination for walleye anglers in 2010. The walleye bite started in May and remained good through September. Standard fall gill netting revealed walleye relative abundance was the highest on record with 28 walleye per net. The high walleye abundance over the last four years is largely due to relatively stable reservoir levels and the annual plants of 100,000 walleye, started in 2003. Fresno contains multiple age classes of walleye, with high densities of 15-17 inch fish. Fishing opportunities for walleye will once again be excellent in 2011.

Since 2003 adult yellow perch abundance has slightly decreased and there has been concern pertaining to the status of the forage base in Fresno Reservoir. The current population of yellow perch consists mostly of 10-12 inch fish (good spawners) and with favorable water levels during April and May these fish can produce a big year-class. Over the last three years yellow perch have had very good reproductive success and this has translated into very "FAT" walleyes.

Fresno remained at or above full pool capacity throughout much of the summer and fall, this allows more small yellow perch and black crappie

to grow and recruit into the population to ensure a good forage base and sport fishery for these two species for years to come. Anglers also reported catching adult crappie upwards of 14 inches from early summer through the fall. The fishery in Fresno is highly dependent on water levels and these water levels greatly impact the reproduction and survival of forage and sport fish throughout the reservoir.

Nelson Reservoir

Nelson Reservoir remained a favorite among walleye anglers in 2010. In 2010, Nelson received 100,000 walleye fingerlings from the Fort Peck Hatchery.

Summer seining efforts revealed spawning success for most species was similar to previous years, with yellow perch, black crappie, and smallmouth bass all having very successful spawns. Annual fall gillnetting yielded the second highest yellow perch per net (16 yellow perch/net) since FWP standardized their locations in 1991. The yellow perch population is mainly comprised of 6-10 inch fish. The northern pike population remains good and there is a good mix of year-classes with northern pike up to 42 inches. The majority of northern pike sampled ranged from 16-28 inches. Walleye numbers remain good and fall netting surveys were normal when compared to long term averages at 10 walleye/net. The walleye population is comprised of mostly 12-18 inch fish.

Angling opportunities on Nelson Reservoir are far from over as the fishing experienced by many anglers during the summer and fall will carry over into the winter months and ice fishing should be very productive for eater sized walleye, northern pike, yellow perch, and black crappie.

Beaver Creek and Bear Paw Reservoirs

These two fisheries once again provided excellent fishing opportunities for anglers simply looking to catch fish, and lots of them! Anglers targeting rainbow trout experienced high catch rates of

8-12 inch rainbows in both reservoirs and on the 10+ miles of stream as well.

Rainbow trout were not the only fish biting this summer. Anglers fishing along the rock rip rap dams of both reservoirs experienced excellent smallmouth bass fishing. Most of these fish ranged from 12-15 inches. The walleye and northern pike populations remain good in Beaver Creek Reservoir. The majority of walleye

range from 14-23 inches and northern pike range from 23-35 inches. Yellow perch abundance in Beaver Creek Reservoir remains very high and the ice fishing opportunities should be as good for yellow perch ranging from 8-9 inches.



Black bullhead from Paulo Reservoir – Valley County.

Havre Area Ponds

FWP manages roughly

150 small ponds and reservoirs located on both public and private property throughout Hill, Blaine, and Phillips Counties. The fisheries are very diverse, with some ponds being managed as rainbow or brook trout fisheries and others as warm water fisheries that could contain bluegill, yellow perch, largemouth bass, northern pike, walleye, tiger muskellunge, black crappie, or channel catfish.

Any anglers wishing to experience the excellent fishing some of these ponds have to offer are encouraged to stop by the Havre Area Resource office and pick up maps and other information to make your trip worthwhile. The fisheries on some of these ponds are greatly affected by water levels and winter severity.

Missouri River Paddlefish above Fort Peck Reservoir

A valuable recreational snag fishery occurs each year for paddlefish above Fort Peck Reservoir in areas down river of the Fred Robinson Bridge. In recent years, harvest of Fort Peck paddlefish has varied with annual river discharges, but has typically ranged between 300 and 600 fish. Historically paddlefishermen have caught numerous paddlefish over 100 pounds, however these fish are aging and being removed from the popula-

tion.

FWP will continue to tag paddlefish and encourage anglers to return tags with information on location and size of fish harvested to the Havre Area Resource Office. This information allows biologists to determine survival, harvest, and growth rates of paddlefish in the Missouri River. In 2005, FWP and the University of Idaho started installing radio transmitters in paddlefish to study how spawning locations and spawning success vary with differences in annual flows. And to evaluate habitat use of adult migratory fish under different hydrological and ecological conditions to gauge the effects of annual environmental variability on paddlefish migratory behavior and eventual year class strength.

The paddlefish population remains good in the Missouri River above Fort Peck and snaggers should expect another great spring in 2011.

Missouri River Pallid Sturgeon Population Assessment Crew- Tyler Haddix

The Missouri River crew continued monitoring pallid sturgeon and other fishes in the Missouri River and its tributaries downstream of Fort Peck Dam during 2010. One of the highlights of 2010 was the influence the Milk River had on the fisheries of the Missouri River. The Milk River had larger spring flows in both overall magnitude and duration than it has had in many previous years. The high flows triggered an adult male pallid sturgeon to migrate at least 30 river miles up the Milk River from the Missouri River during the spring. This was only the second documented wild pallid sturgeon to ever use the Milk River. Additionally, anglers were catching some of the much smaller hatchery reared juvenile pallid sturgeon in the Milk River, which had migrated up the Milk River from their original stocking locations on the Missouri River.

The warm turbid water of the Milk River entering the relatively cold sediment free Missouri River just downstream of Fort Peck Dam also had benefits for other native fishes. Shovelnose sturgeon had a very successful spawn this year in the Missouri River. Trend netting indicated that 2010 was the largest year class of shovelnose sturgeon produced in the Missouri River downstream of Fort Peck Dam in 8 years of monitoring. In addition, YOY shovelnose sturgeon were found further upstream in the Missouri River than in any previous sampling year. Although we know from our sampling design that these shovelnose sturgeon were not produced in the Milk River, they likely had a more successful spawning year in the Missouri River due to the warmer more turbid water conditions that were a direct result of the high Milk River flows.

Another highlight of the 2010 field season was a three-day intensive sampling effort during August in the Missouri River downstream of the confluence of the Yellowstone River in North Dakota.

FWP biologists assisted a U.S. Fish and Wildlife crew from Bismarck North Dakota in trammel netting for hatchery reared pallid sturgeon. In the three day effort over 400 individual pallid sturgeon were sampled. The data from this and other efforts provide information required to estimate survival rates of pallid sturgeon stocked into both the Missouri and Yellowstone Rivers in Montana. An understanding of the rate at which these stocked fish survive is critical for the pallid sturgeon stocking program. If managers stock too many pallid sturgeon there may be too much completion between resources for pallid sturgeon and other native fishes. Conversely, if too few are stocked, not enough may survive to adulthood to perpetuate the species.



These brothers caught this nice channel catfish from Home Run Pond, in Glasgow, Montana

ate the species.

Northeastern Montana Ponds

FWP is working hard in the eastern portions of

FISHING NEWSLETTER 2011

Region 6 (Valley, Daniels, Sheridan, Roosevelt, McCone and Richland Counties) to better its prairie ponds fishing program. In 2010 many ponds that hadn't been sampled in years were sampled with nets and various habitat measurements were taken. The data will be used to evaluate which ponds need fish stocked in them on an annual basis and what ponds can support self sustaining game fish populations. The goal is to have diverse fisheries throughout the region where anglers young and old can enjoy our Montana fishing heritage out on the prairie. Anglers should be on the lookout for a Region 6 ponds pamphlet in 2011. The booklet will have information on our current stocking of area ponds, current sampling data and maps of how to get to these often remote fisheries.

One of the bright spots of the 2010 pond sampling was Box Elder Reservoir near Plentywood. Numerous catchable walleyes from the 14 to 22 inch range were sampled in gill nets. However, anglers found these fish hard to catch in 2010, likely due to the explosion of baitfish within the reservoir. Early spring should bring some excellent walleye fishing to those in Sheridan County. Additionally, take a kid to Box Elder and fish for the large black bullheads that are quite abundant. A day catching a bucket of these tasty fish will be one a youngster won't easily forget!

In south Valley County, both Desert Coulee and Valley Reservoir have abundant catchable yellow perch populations with some perch exceeding 11 inches. Ice fishing these reservoirs this winter may be well worth the drive from surrounding areas.

In Daniels County, catchable rainbow trout were abundant in Killenbeck Reservoir. Rainbows over 11 inches in length were sampled in early August and should grow a few more inches before the ice comes.

REGION 7 SOUTHEAST MONTANA Yellowstone River Paddlefish

The 2010 paddlefish season began May 15 with river flows around 9,000 cfs. These flows were adequate to trigger a small run upriver and a few fish were harvested the first day. As discharge

climbed above 12,000 cfs fish began to congregate in numbers below Intake diversion dam and catches increased. Harvest peaked at 300 fish on May 25 as river discharge exceeded 24,000 cfs. Harvest closed at 11:30 AM the next fishing day when 800 fish had been taken at Intake, MT. Catch and release fishing continued until June 5 providing additional angling opportunity without increasing harvest and allowing FWP personnel the opportunity to jaw tag 992 paddlefish. Monitoring the number of tagged paddlefish that are harvested during the season is critical for estimating exploitation of the population and ensuring that the fishery is managed sustainably.

The estimated harvest for the Lake Sakakawea/ Yellowstone River paddlefish population in Montana was 1,027 fish. The 1995 year class continues to account for the majority of harvest and 2010 surveys of juvenile paddlefish on Lake Sakakawea show no indication of another strong year class following. While the females from this year class are beginning to appear and will provide good fishing for years to come further restriction of harvest will be necessary if spawn-



Successful day of fishing at Intake Fishing Access Site.

ing efforts do not provide another good year class that will ensure the continuation of the population after the 1995 stock has been exhausted.

Paddlefish spawning success is dependent on shallow water habitats rich with zooplankton food sources in upper Lake Sakakawea. The 2009

and 2010 surveys indicated poor production in spite of relatively good water conditions. Eastern Montana has experienced an exceptional water year in 2010 providing good flows in the lower Yellowstone throughout the season, depending on the winter snow pack there is great potential for a successful 2011 spawning season, but only time will tell.

Other Yellowstone River Fishing Opportunities

The lower Yellowstone continues to provide exceptional angling opportunity for a variety of warm-water game and non-game species. Native Montana game fish, channel catfish and sauger can be found throughout the river. Non-native game fish, smallmouth bass, and walleye provide additional angling diversity. Non-game species, shovelnose sturgeon and goldeye can also be caught by hook and line. Channel catfish weighing five to ten pounds are common and twenty pound fish are a possibility. Smaller 10-12 inch Yellowstone catfish are extremely abundant and while they may be a bother to some anglers targeting big fish they provide great opportunity for kids and those that simply like to catch a lot of fish.

Channel catfish are abundant throughout the lower Yellowstone and fall electrofishing surveys indicated they are particularly abundant in the Hysham and Forsyth trend areas downstream of the mouth of the Bighorn River. Smallmouth bass and walleye numbers were also best through these reaches in the clearer water upstream of the mouth of the Powder River. Smallmouth bass can be caught spring through fall and while fishing is best in the morning and evening they provide angling opportunity throughout the day. Walleye fishing heats up in the fall as water temperatures begin to drop and while sauger are more abundant there are some large walleye in the river. Fall surveys sampled sauger in good numbers and in a variety of size classes.

Sauger generally become more abundant further downstream below the mouth of the Powder River but the individuals are larger further upstream. Trend sections at Fallon and below Intake diversion dam (turbid rearing habitats) produced an abundance of juvenile sauger likely spawned in the spring of 2009. This year class could indicate excellent fishing in a couple of years as they recruit into harvestable size classes and redistribute throughout the river. The Yellowstone River provides a unique and unrivaled source of sauger fishing for North America, remember this when fishing the Yellowstone and consider ways of protecting females in the population either by including males (usually smaller in size) in your daily limit or by practicing catch and release for this Montana native.

Shovelnose sturgeon, freshwater drum, and burbot routinely show up in fall surveys and add to the diversity of angling opportunity on the Lower Yellowstone. Goldeye will bite on live bait, soft plastics, and lures and can be an entertaining diversion when using ultra light tackle or fly-fishing gear.



Happy walleye angler on Tongue River Reservoir.

Tongue River

2010 Trend electrofishing on the Tongue River above and below Tongue River Reservoir indicated that the Tongue River provides habitat for many game and non-game fish species. Catfish and smallmouth bass were abundant in the spring and early summer throughout the river. Sauger and walleye can also be found but in low numbers compared to the main stem of the Yellowstone. A trout fishing opportunity exists in the tail-water downstream of Tongue River Reservoir dam. To date chronic dewatering appears to have greater potential to negatively effect the fish community in the Tongue River than coal bed methane.

Sampling to identify the effectiveness of the Muggli Fish Passage around the T and Y diver-

FISHING NEWSLETTER 2011

sion dam (river mile 20) started in 2008 and has continued through 2010. The lower third of the fish ladder received modification in April 2010 in an effort to improve fish passage capabilities for shovelnose sturgeon. Sampling over the last three years has collected 25 fish species that have successfully navigated the fish passage.

Game or angler targeted species collected by frequency where: channel catfish, smallmouth bass, sauger, yellow perch, wall-eye, brown trout, and white and black crappie. One shovelnose sturgeon, two sturgeon chubs and three bigmouth buffalo were also collected within the middle third of the bypass channel when it was drained in June, 2010. In summary, the Muggli Fish Passage has been a very successful project for fish that migrate upstream from the Yellowstone River.

Tongue River Reservoir

Cooler weather patterns and ample moisture in 2010 made crappie fishing on Tongue River Reservoir difficult for most anglers. Anglers had to work harder for fish than usual but average size of crappie caught was larger than in past years with fish up to 10.5 inches. While the cooler temperatures disrupted normally predictable spawning behaviors and left crappie anglers dissatisfied they extended prime walleye fishing conditions into the summer and had walleye anglers raving that fishing was the best it has ever been. Department sampling efforts indicated that both crappie and walleye populations are doing as well or better than in past years. Seining efforts indicated crappie YOY are abundant and trap and gill netting yielded higher than usual catch rates for adults.

For the 2011 fishing season expect similar results to 2010 if weather patterns yield another cool wet spring and summer. If we get more characteristic temperatures and rainfall expect better crappie fishing and similar walleye fishing but for a short-

er period of time, not extending as far into the summer. Smallmouth bass, bullheads, northern pike, and channel catfish make up the rest of the angler harvest in Tongue River Reservoir and lag far behind crappie in both numbers caught and angler preference.



Three generations of family catching trout on Haugains Bass Pond near Miles City, MT.

Southeastern Montana Ponds

Of the 100+ ponds being managed for fish in Region 7's pond program most are privately owned. In exchange for fish stocking and management landowners allow public access. Ponds are stocked with a variety of fish including bass, catfish, perch, and rainbow trout. About one third of the ponds in the program are sampled each year and survey results are summarized in the Region 7 Pond Fishing Guide.

The Pond Fishing Guide is updated annually and available for free to the public

by stopping by the Miles City office or by calling 406-234-0900. The pond guide provides maps of the ponds in the program arranged by county. Ownership and fishery information is also provided in the booklet, including private landowner names and survey results. As with all private lands, permission is granted through the landowner and must be obtained each and every time before fishing. It is the responsibility of the fisherman to look up the landowner's phone number and request permission to fish. In 2010, many of southeastern Montana's prairie ponds made modest gains in water level as a result of the good water year. In May and June 2010 Region 7 staff transferred yellow perch to several ponds that had suffered winter kills and tiger muskie were stocked in Gartside Reservoir in October.

FISH HEALTH PROGRAM KEN STAIGMILLER

The State Fish Health Lab is located at the Giant Springs Trout Hatchery in Great Falls, Montana

and has a full time staff of two people. The fish health program is responsible for helping maintain quality, healthy populations of fish in Montana's lakes, rivers and streams, and our State hatchery system. The program operates under the guiding principle that prevention is better than control and focuses a great deal of effort on protecting Montana's fish from the introduction of a variety of harmful fish pathogens. Thorough inspections are conducted on many populations of both wild and hatchery populations annually, to ensure that populations are free of harmful pathogens before fish or eggs are moved to new locations. In addition to activities focused on preventing infections, the fish health lab also provides diagnostic services for both wild and captive fish populations when disease outbreaks do occur. The fish health lab is also responsible for oversight of Montana's fish disease and importation laws, and issues import permits for all live fish or gametes that are imported into the State.

The fish health program has seen significant changes within the last several years in terms of the amount of sampling of warm and cool water fish populations. The abundance of water the last several years has led to an increase in movements of warmwater fish between ponds, and the fish health staff stayed busy certifying these populations free of pathogens.

In 2010, the fish health staff participated in several efforts to conserve some of Montana's native fish species. Working with wild populations of WCT, arctic grayling, sauger, and pallid sturgeon pose a variety of problems. Fish and eggs need to be moved on a frequent basis, yet finding adequate numbers of wild fish to screen for fish pathogens can be challenging. The fish health staff collaborated on projects working with cutthroat trout in the Flathead drainage, grayling in the Big Hole drainage, sauger in Bighorn drainage, and Pallid sturgeon in the Missouri and Yellowstone Rivers.

Spring and fall always means spawning fish and the fish health staff worked with both regional and hatchery crews to collect, spawn, and fish health test a variety of fish species that contribute eggs to our State hatchery system. Overall, egg col-

lection efforts were very good and we have a



Washoe Park collecting gametes and fish health samples as part of the brood infusion project.



Sampling effort looking for iridovirus in shovelnose sturgeon on the Missouri River.

hatchery system full of quality, healthy fish which will be ready for stocking in the spring.

AQUATIC INVASIVE SPECIES PROGRAM **EILEEN RYCE**

The Inspect, Clean, Dry campaign was launched during the boating season of 2010 and is still ongoing. A variety of materials were used in the outreach campaign including 12 billboards, 500 metal signs for Fishing Access Sites and boat ramps, direct mailings to 50,000 boaters and anglers, several presentations to angling groups and K-12 classrooms, and distribution of other print materials including brochures, flyers, media packets, bumper stickers and posters. Advertisements were also purchased in 15 Montana newspapers, on the Northern Broadcasting network, with Bresnan and also on MT Outdoor Radio. Tailgate wraps are also being used as a novel approach on FWP trucks to help spread the message. The outreach campaign is being evaluated to determine the most effective outreach methods. Seven trainings were conducted during the winter and spring for resource agency staff, counties, and NGOs. The trainings covered ANS identification, early detection, prevention strategies and watercraft inspection/decontamination.

Watercraft inspections were conducted statewide on about 50 different waterbodies. About 3,000 watercraft were inspected. Early detection monitoring was carried out at about 600 sites on 77 waterbodies statewide. FWP worked closed with the counties and Montana Department of Agriculture to help identify the distribution of Eurasian Watermilfoil.

In November 2010, organisms were identified in water samples from Flathead Lake that displayed characteristics consistent with zebra or quagga mussels. At this time, it has not been confirmed as either zebra or quagga mussels. We are currently working to confirm or deny the find.

With just **three easy steps**, you can do your part to help stop the spread of aquatic invasive species like plants, mussels and whirling disease:

INSPECT. CLEAN. DRY.

1. INSPECT.

After leaving a lake or stream, inspect your boat, engine, trailer, anchor, waders, and other fishing and boating gear for mud, water, and vegetation that could carry aquatic invasive species.

2. CLEAN.

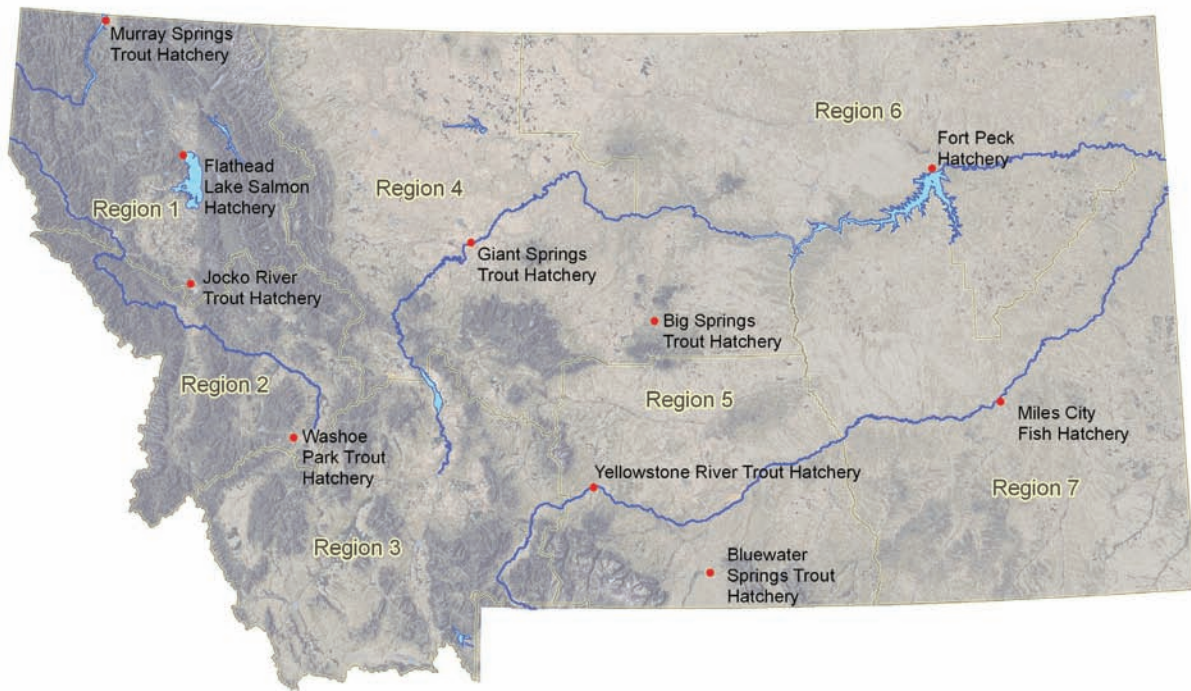
Completely remove all mud, water, and vegetation you find. Boaters should use a pressurized power sprayer, found at most do-it-yourself car washes. The hot water helps kill organisms and the pressure removes mud and vegetation. No need to use soap or chemicals.

3. DRY.

Aquatic invaders can survive only in water and wet areas. By draining and drying your boat and fishing equipment thoroughly, you will kill most invasive species. The longer you keep your boat, trailer, waders, and other gear outside in the hot sun between trips, the better.



**STOP AQUATIC
HITCHHIKERS!**



HATCHERIES

Big Spring Trout Hatchery

Route 1 Box 1670
Lewistown, MT 59457
(406) 538-5588

Bluewater Springs Trout Hatchery

PO Box 423
Bridger, MT 59014
(406) 668-7443

Flathead Lake Salmon Hatchery

100 Spring Creek Road
Somers, MT 59932
(406) 857-3744

Fort Peck Hatchery

PO Box 167
Fort Peck, MT 59223
(406) 526-3689

Giant Springs Trout Hatchery

4801 Giant Springs Rd
Great Falls, MT 59405
(406) 452-5734

Jocko River Trout Hatchery

206 Hatchery Lane
Arlee, MT 59821
(406) 726-3344

Miles City Fish Hatchery

PO Box 756
Miles City, MT 59301
(406) 234-4753

Murray Springs Trout Hatchery

5475 Sophie Lake Road
Eureka, MT 59917
(406) 889-3489

Washoe Park Trout Hatchery

600 W Pennsylvania St
Anaconda, MT 59711
(406) 563-2531

Yellowstone River Trout Hatchery

PO Box 508
Big Timber, MT 59011
(406) 932-4434

MONTANA FISH HATCHERIES

The first Montana hatchery began operation in 1908 at what is now Washoe Park Trout Hatchery at Anaconda. Currently, ten hatcheries are operated by FWP; eight are state owned and two, Murray Springs at Eureka and Fort Peck Fish Hatchery at Fort Peck, are operated by FWP. Three federal hatcheries, at Bozeman, Creston and Ennis, are operated by the USFWS.

Stocking Fish

- Hatchery fish are stocked into approximately 836 lakes and reservoirs and approximately 23 rivers or streams throughout Montana to provide sport fishing opportunities and restore native fish species.
- Maintaining naturally producing wild trout populations has been a priority in Montana since 1974 when a research project on the Madison River showed planting of hatchery trout to be detrimental to wild populations in rivers and streams.
- Annual hatchery production of fish is typically 45 million warm-water fish and 8.4 million cold-water fish. Most warm-water species are stocked as fry, thus total warm-water production is less than 11,000 pounds of fish. Total weight of cold-water species typically exceeds 350,000 pounds.
- Annual stocking plans and stocking reports for specific Montana waters can be found on FWP's website at <http://fwp.mt.gov/fishing/hatcheries/default.html>.

BIG SPRINGS TROUT HATCHERY

Jim Drissel, Manager

Big Springs Hatchery, located 7 miles south of Lewistown, Montana, is one of the oldest hatcheries in the state. Originally, the upper unit was put in service by the state in 1922 and the lower unit in 1960. Since then, the facilities have been remodeled and improved many times over the years. Currently, the hatchery is in the process of removing PCB contaminated paint that was used around the hatchery many years ago and we are well along in the remediation efforts. The hatch-

ery is actually built in two units, an Upper Unit where eggs are hatched and early rearing takes place, and a Lower Unit, about a ¼ mile downstream, which is used as a grow-out facility. The Upper Unit, where the Big Spring is located, is adjacent to a Lewistown City Park and is a favorite visiting spot for tourists and locals alike.



Big Springs upper unit tank room.

The main water supply for the hatchery comes from Big Springs, which is claimed to be the third largest freshwater springs in the world. In addition, the springs provides the water supply for the city of Lewistown and is the headwaters for Big Springs creek, a year round red-ribbon (Class II) fly fishing stream. The springs produce over 50,000 gallons a minute at a constant year round temperature of 52 degrees, perfect for rearing trout and salmon.

Big Springs Hatchery is FWP's largest cold water production facility, currently rearing over 1.5



Big Springs Hatchery.

million fry, fingerlings, and catchable sized rainbow trout, brown trout, kokanee, and chinook salmon each year. Hatchery personnel distribute these fish to many waters within the state with the major portion of the rainbow trout production going into Canyon Ferry and Holter reservoirs. The Chinook salmon, a recent addition, are raised to support the Fort Peck Hatchery and are returned to plant in Fort Peck Reservoir.

BLUEWATER SPRINGS TROUT HATCHERY

Adam Moticak, Manager

Bluewater Fish Hatchery is a production station located east of Bridger, Montana. Bluewater provides fish for approximately 50 waters scattered throughout the southern portions of the state. The hatchery raises three different strains of rainbow trout including Arlee, Eagle Lake and Harrison Lake. These fish are stocked into reservoirs to maintain sport and urban fisheries. Bluewater also began raising YCT in 2010. The hatchery also overwinters the large and smallmouth bass broodstocks which come from the Miles City Fish Hatchery. Bass are fed a healthy supply of trout forage while at the facility.



Aerial photo of Bluewater Springs Trout Hatchery.

In 2010, Bluewater hatchery stocked 928,116 fish weighing 48,205 pounds into waters located in regions 2,3,4,5 and 7. Some of the major waters include: Georgetown Lake, Hebgen Lake, Clark Canyon Reservoir, Canyon Ferry and Cooney Reservoir. The hatchery also supplies fish for the Region 7 air planting program in which fish are planted via helicopter. A total of 370,806 fish weighing 2,455 pounds were produced to supply fish for the air plant and bass forage programs.

The hatchery also supplied Yellowstone Cutthroat for Sage Creek located in the Prior Mountains south of Billings to aid in restoring this native fishery. In 2010, the hatchery began planting Ruby reservoir again which was planted by Ennis National Fish Hatchery in the past. Hatchery personnel helped to stock Tiger Muskie's into Deadman's Reservoir located in Region 5.

Please feel free to stop by and visit the fish hatchery. The hatchery is open to the public from 8:00-5:00 seven days a week.

FLATHEAD LAKE SALMON HATCHERY

Mark Kornick, Manager

The primary function of the Flathead Lake Salmon Hatchery is to capture wild spawning adult kokanee salmon and collect, incubate, and hatch 1,600,000 eggs for this hatchery's annual stocking program in Montana. To meet all in-state requests for kokanee salmon production, a minimum of 2,800,000 fertilized green kokanee salmon eggs must be collected annually. The hatchery also collects, incubates and distributes grayling, WCT, and Ashley Lake rainbow-cutthroat trout hybrids. This project is also responsible for developing and operating two remote satellite facilities at Rose Creek and Sekokini Springs.

A total of 2,600,000 fertilized green kokanee eggs were collected from two lake sources (Lake Mary Ronan and Bitterroot Lake). Surplus kokanee eggs totaling 428,736 were shipped to Idaho Fish and Game for eventual distribution in Idaho waters.

FLSH incubated, hatched and reared 110,000 WCT for backcountry lakes planting and regional research projects.

Work to further develop the Rose Creek satellite facility continued. Work accomplished included preliminary design of a hatchery building in coordination with FWP Design and Construction Bureau and contracted architect. Construction is slated for fall of 2010.

We worked with regional fisheries staff to further develop of the Sekokini Springs site. Fish from genetic donor populations from 5 1A streams

were held and reared at this site. The males from these fish were used to infuse genes into the captive broodstock at Washoe Park. Sekokini Springs also served as home to wild Danaher River fish to serve as brood for wild fish reintroductions in the South Fork Flathead River headwater lakes.

A total of 1,422,000 kokanee (3,160 pounds), 115,000 grayling (4.6 pounds) and 28,000 rainbow-cutthroat trout hybrids (18 pounds) were stocked into 27 waters in Montana. 110,000 Westslope Cutthroat were stocked by personnel via helicopter into 38 high mountain lakes in the Whitefish, and Swan ranges.

FORT PECK FISH HATCHERY

Wade Geraets, Acting Manager

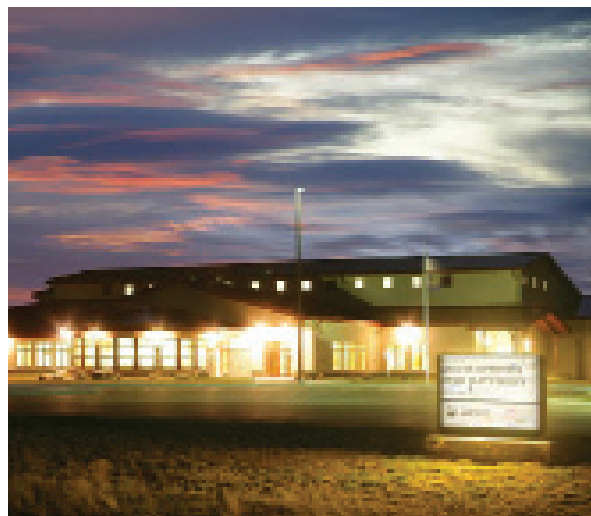
The Fort Peck Fish Hatchery (FPFH) is FWP's newest hatchery. Built by the Army Corp of Engineers at a cost of \$22 million, the hatchery is a state of the art facility and went into production in January of 2006. Encompassing 100 acres of land, the hatchery is comprised of a 30,000 sq. ft office/rearing building, pump house, 40 ponds totaling 45 surface acres, and 8 80' raceways. The primary function of FPFH is to provide fish to maintain sport fish and recreational opportunities to anglers in Northeastern Montana. Species raised at FPSFH are walleye, northern pike, chinook salmon, rainbow trout and pallid sturgeon.

The primary species raised at FPFH is walleye. The annual request of 80 million eggs was raised to 100 million eggs during the winter of 2010. The spawning is done remotely, due to low water levels, by the Region 6 Fort Peck Lake biologist, his staff, and the FPFH staff. Numbers of eggs collected is dependent on weather with some years exceeding the request and others falling short. In 2010, the egg take totaled 85,090,688 being split between FPFH and the Miles City facility. FPFH received 52,590,688 green eggs and the Miles City facility approximately 32.5 million green eggs. After incubation, walleyes are either stocked as fry (3-5 days old), 1-2 inch fingerlings (approx. 30 days old), or as advanced fingerlings (> 60 days). FPFH is also responsible for the production of triploid walleye for the state of Montana. Triploid production has been ongoing for 2 seasons, although still in the experimen-

tal stage, results have been more than promising so far. Currently, all efforts have been directed toward achieving 100% triploidy induction rates with very little effort towards production. In 2009, triploid induction rates were 99.17% and 93.68% for 2 different pressure durations with 19.81% pond survival. In 2010, triploid induction rates were 100% for all trials with 14.21% pond survival.

During 2009, FPFH took over all northern pike production. Production goals vary from year to year based on management goals with maximum numbers as follows: fry release 410,000; fingerling release 10,500. Production goals could possibly increase in the future due to stocking of federal waters within the state to prevent the introduction diseases to state waters.

The FFH is the only instate source of chinook salmon eggs. Production goals are for 150,000 spring release fingerlings and 50,000 fall release fingerling. Due to poor falls runs of returning adults, surplus eggs and fingerlings from neighboring states (North Dakota and South Dakota), that have been tested and certified as disease free, have been obtained to meet management goals. With the increase in water levels to Fort Peck Reservoir over the last few years, it is hoped that significant runs of salmon will return and management goals can be met without additional aid from outside sources.



Fort Peck Fish Hatchery at night.

Starting in 2010, FPSFH started rearing rainbow trout for stocking waters in northeastern Montana. This request was acquired from Big Springs SFH in Lewistown due to the fact that it would be more economically feasible for the FPSFH to rear and stock fish in the northeastern portion of Montana where the hatchery is located. In previous years, these stockings were not performed due to legislative restrictions which were lifted in 2009. Current production requests vary from year to year, but on average approximately 110,000 fingerlings per year will be stocked.

During FY 2010, the last pallid sturgeon were raised at FPSFH due to changes in management strategies and funding. FPSFH stocked a total of 23,201,983 fish weighing a total of 16,449.32 pounds of 4 different species (walleye, pallid sturgeon, rainbow trout, and northern pike) into 73 state waters.



Spawning at Fort Peck.

GIANT SPRINGS TROUT HATCHERY

Bruce Chaney, Manager

The 2010 production year went as planned and all of our program goals were met. With the last four years of drought, we really had no idea what this spring and summer was going to bring us as in the way of water levels for our fish plants. As we loaded plant after plant throughout the season, we noticed that a large majority of

our ponds looked to be in excellent shape and once again were full. As the rain continued fall, our Hauser Reservoir plants were delayed due to record flows on the Missouri which seems to last forever. Once those fish were in, it was on to the Rocky Mountain Front, planting Willow Creek, Giant Springs Fish Hatchery.

Nilan, Eureka, and Pishkun Reservoir. Again all of these waters were up and still, the rain kept falling. As the mild summer rolled to a stop, we finished up our plants with a total of 402,000 fingerlings and 105,000 catchables being planted. As fall hit with some snow in mid September, we started our fall plants. Beaver Creek and Bearpaw reservoirs where the highest we have seen them in three years and from talking to some anglers, producing nice fish. Hauser was the last of the plants for the year and between Beaver Creek, Bearpaw, and Hauser Reservoir, we put out 145,000 catchables.



Giant Springs Trout Hatchery.

For the last three years we have been planting 40-50 thousand brook trout in Georgetown Lake to help to the population turn around due to the losses from whirling disease and it appears to be working. We have heard from anglers and the biologist that fish are showing up either on the end of someone's line or in sampling nets. In November we will be conducting some trials on the disinfection of our eggs on arrival using different concentrations of Iodine. We will be looking for the highest concentration of Iodine that can effectively be used with a low level of mortality on the eggs and also we will be examining the loads of bacteria on those eggs at each level of

concentration after disinfection. This will be a joint effort between hatchery staff and the fish health staff.

Our biggest challenge for the 2010-2011 production year will be taking on the task of raising an extra 235,000 fish for Big Springs Fish Hatchery while they are under construction. This challenge will keep us on our toes really watching our densities and refiguring raceway numbers to accommodate these extra fish.



Planting fish on Hauser Reservoir.

JOCKO RIVER TROUT HATCHERY

Charlie Bridgham, Manager

Jocko River Trout Hatchery's (JRTH) primary function is to maintain Montana's domesticated Arlee rainbow broodstock and perform associated spawning activities. Egg production goals were met and all requests were filled. Approximately 5,402,596 green eggs were produced. 2,043,321 eyed eggs were shipped to state, federal, and private hatcheries, and 381,367 eyed eggs were kept at JRTH for production and future broodstock.

A total of 295,300 fish (31,109 lbs) were stocked out of Jocko River Hatchery. Of those, 266,617 were fingerlings, 26,738 were catchables, and 1,945 were brood.

JRTH expanded its triploidy induction program utilizing pressure-treating equipment. This program produced 671,479 eyed eggs. Planning on the flood protection berming project continued. Renovation to the exterior of the original four stall

garage was partially completed.



Jocko River Trout Hatchery.

MILES CITY FISH HATCHERY

Mike Rhodes, Manager

The Miles City Fish Hatchery (MCFH) primary goal is to produce warm and cool water fish for distribution throughout the State of Montana.

MCSFH is responsible for coordinating the distribution of rainbow trout in Region 7. All trout are planted by helicopter to reduce the time required to distribute the trout and to avoid weather-caused problems with the unimproved roads in the region. Because of the risk of infection with whirling disease due to its open water supply, the trout distributed by MCSFH are raised at Bluewater Springs Trout Hatchery.

This facility maintains FWP's largemouth and smallmouth brood stocks. Spawning success is primarily determined by environmental factors and predation. Osprey, Canada geese and their broods, continue to plague the spawning process of both species. The post-spawn largemouth and smallmouth brood fish are transported to the Bluewater Springs Fish Hatchery for over-wintering because of the availability of suitable forage fish and to save the cost of heating water.

Channel catfish adults were collected from the Yellowstone River drainage. They were placed in a 1/2 half acre lined pond to spawn naturally. Successful spawning occurred, but due to a high parasite load the outside rearing pond was once again victim to mortality from parasites. The

FISHING NEWSLETTER 2011

channel catfish fry that were reared inside were treated, which kept their mortality within acceptable limits.

Approximately 85,090,000 walleye eggs were collected from Fort Peck Reservoir by the Region 7 Fisheries and Fort Peck Hatchery staffs. These eggs were split between Fort Peck Hatchery and MCFH, with MCFH incubating and hatching 32,200,00 eggs. Walleyes were stocked either as 3-4 day old fry, 1-2 inch fingerlings approximately 5-6 weeks later, or kept in outside production ponds for stocking as 4-6 inches advanced fingerlings.



Miles City Fish Hatchery.

Hatchery personnel are involved in the recovery of the endangered pallid sturgeon. They assist with the collection of adults at the Missouri-Yellowstone River confluence. Adult pallid sturgeon are then transported to MCFH where they are held in a temperature-controlled environment to provide final pre-spawning environmental stimuli. Five males and 2 females were collected in April 2009 and spawned during the month of June. Egg maturation and hatching success was initially very good this year. Poor pallid sturgeon fry survival continues to plague all the facilities involved. For the third year, MCFH furnished the Garrison Dam NFH with shovelnose sturgeon eggs. They will be reared there and planted in the State of Wyoming this fall.

In late fall of 2010 FWP picked up 1450 tiger muskies from Oswald Fisheries (commercial hatchery) in Bruce, SD. Fish were stocked in Deadmans, Cow Coulee, Gartside Reservoir, and Horeshoe Lake. Oswald Fisheries is very biose-

cure commercial hatchery. Fish pathogens are a concern for us, however, ovarian fluid from brood fish are tested as are the progeny, and everything tested clean. It was a long trip, but when all was said and done we got some pretty nice looking fish stocked in a few waters to keep our tiger muskies program alive for the time being. This project has been many years in the works and this joint effort went very well.

MCFH stocked a total of 10,838,913 fish weighing a total of 2458 pounds of 6 different species (walleye, pallid sturgeon, rainbow trout, channel catfish, smallmouth bass, and largemouth bass) into 86 state waters.



Miles City Fish Hatchery raceways.

MURRAY SPRINGS TROUT HATCHERY

John Lord, Manager

The Murray Springs Trout Hatchery was constructed in 1978 to mitigate for fishery losses in the Kootenai River that were caused by the construction of Libby Dam. Operating the hatchery is a cooperative venture between the US Army Corps of Engineers and FWP. The Corps built the hatchery, maintains the facilities, and funds the hatchery programs. Department employees raise the fish, and FWP fishery managers oversee the fish-stocking plan. Most of the fish produced at Murray Springs are stocked into northwestern Montana waters.

During 2010, the hatchery crew stocked a little over 311,000 trout into 68 waters. The breakdown by species/strain is such that roughly 89,200 westslope cutthroat, 43,300 Gerrard

FISHING NEWSLETTER 2011

rainbow, 42,000 redband rainbow, and 136,500 Eagle Lake rainbow were reared and distributed from Murray Springs this year.



Murray Spring Fish Hatchery display.

We stocked a variety of waters including urban fisheries. The communities of Troy, Eureka, Whitefish, and Kalispell have ponds that can be reached by young anglers on foot or bicycle. We released nearly 10,950 cutthroats and rainbows (mostly catchables and retired brood fish) into ponds at the aforementioned communities. We also supplied fish to school teachers for their classroom aquariums and educational curriculums. Some of our fish were stocked into alpine lakes for anglers seeking backcountry experiences. Yet the bulk of our fish were planted in lower-elevation lakes that can be reached by vehicles

A new redband rainbow broodstock is being developed by FWP. Year 2010 was the second year for this program. Eggs were collected from wild fish that were maintained at the Libby Field Station, and then transferred to the Murray Springs where the resulting fish will be reared. These unique trout are native to a few streams in Northwest Montana. Redbands that were released into a few Lincoln County lakes on an experimental basis have proved to be popular with fishermen.

As is noted above, we stocked several thousand Gerrard rainbows. Those fish were released into lakes that have abundant forage-fish populations

of kokanee salmon or minnows. The management objective is for the Gerrards to prey on the forage fish, and then grow to become trophy-sized sport fish. It is too early to determine if that objective will be met, but we are optimistic given that Gerrards are known to exceed ten pounds (and even twenty pounds) in some Canadian lakes.

Like much of Montana, the rural landscape of the Tobacco Valley is experiencing a housing-construction boom. Several new wells and septic systems are being developed to service the new homes that are being built near to the Murray Springs Hatchery. Although we have not yet measured any impacts to the hatchery, we are concerned about how possible changes to the local aquifer might affect our hatchery water-supply. Fish hatcheries require an ample source of high-quality water to produce fish. If water quality or quantity is compromised, then fewer fish will be available for stocking programs and to sportsmen. That dilemma is also faced by other fish hatcheries across Montana.



Murray Spring Trout Hatchery raceways.

WASHOE PARK TROUT HATCHERY

Mark Sweeney, Manager

The primary mission of the Washoe Park Trout Hatchery (WPTH) is to manage Montana's only westslope cutthroat broodstock. The founding population of today's broodstock was taken from tributaries of the Hungry Horse and the lower Clark Fork drainages in 1984 and 1985 along with continuing contributions from wild popula-

tions as necessary to ensure genetic diversity.

WPTH produced approximately 1,200,000 eyed WCT eggs in 2010. Approximately 30,000 of these eggs were kept at the facility for future broodstock and 317,000 for production fish to be stocked across western Montana. A total of 826,000 WCT eggs were shipped to Murray Springs and Somers Hatcheries and Creston National Fish Hatchery for their production needs. A total of 139,079 WCT totaling 5,510 pounds were stocked into seventy-seven waters in Montana including; East Fork Reservoir, Seeley Lake, Salmon Lake and Placid Lake in 2010 using trucks, ATVs, helicopters, backpacks and horse packs.

The WPTH staff is working to expand the production of WCT. Brood numbers are currently being expanded to keep up with increased fish and egg requests. Capacity for raising catchable-size fish has doubled and our production has increased respectively. We are expanding our efforts in triploid production to meet increasing demands from biologists for sterile WCT.

Hatchery staff spawned brook trout again this year at Crystal Lakes Private Hatchery for stocking Georgetown Lake. The eggs are incubated at Washoe Park then sent to Giant Springs Trout Hatchery to be raised. 35,000 four-inch fish will be stocked into Georgetown Lake in the summer of 2011.



Helicopter taking off to plant mountain lakes.

This year was the first of three years of wild infusions into our broodstock. In order to maintain genetic diversity in our brood stock, biologists from FWP bring pure, wild cutthroat from tributaries of the South Fork Flathead drainage to a satellite of the Somers hatchery to overwinter. They are then brought to Anaconda and crossed with our hatchery brood. After additional genetic and health screening, the resulting crosses are added into our future brood and will contribute their genetics in three years. This project requires a large amount of collaboration between the biologists, hatcheries, fish health, geneticists and many others and was incredibly successful this year.



Four year old female brood fish in an outdoor raceway.

Our facility continues to serve as an aquatic and natural resource education center. Our visitor center is a destination for southwest Montana schools and youth groups. The staff from the Washoe Park Trout Hatchery frequently goes into area classrooms to teach area students about our aquatic resources. This effort will continue as our visitor center expands.

YELLOWSTONE RIVER TROUT HATCHERY

Jay Pravecek, Manager

The primary function of the Yellowstone River Trout Hatchery is to maintain and enhance the YCT and fluvial arctic grayling broodstocks. Recently, we have taken over wild spawning of golden trout at Sylvan Lake.

FISHING NEWSLETTER 2011

The broodstock improvement program is now finished. Over the last five years, we collected gametes from over 600 individuals from Goose Lake, north of Cooke City, MT. This year we spawned 757 individuals from the captive broodstock. The broodstock produced 482,000 eggs.

This is the fourth year the Yellowstone River Trout Hatchery managed the hatchery portion of the Montana grayling recovery program. Over 114,000 eggs were collected for future broodstock as well as all of the eggs needed for grayling recovery efforts.



Aerial photo of the Yellowstone River Trout Hatchery.

Golden trout eggs were collected from Sylvan Lake. The spawn timing for these fish is usually July 1st and causes confusion in some of the numbers as they overlap with our fiscal years. For FY10, approximately 9,534 eggs were shipped to Wyoming to support that state's mountain lakes stocking program. From the previous year's egg take, 6,850 fry were stocked into 4 Montana high mountain lakes.

Fifty-one waters were planted with 235,222 Yellowstone cutthroat, arctic grayling and golden trout weighing 5,720 pounds (includes grayling stocked as eggs). Rainbow trout were transported and stocked by our personnel, but were not raised at this hatchery. We also provided fish for research purposes to schools, the Bozeman Fish Tech Center and graduate students.



FWP Biologists Grant Grisak and Scott Rumsey prepare a specially designed fish tank to release golden trout to Island Lake in the Mission Mountains using a helicopter.

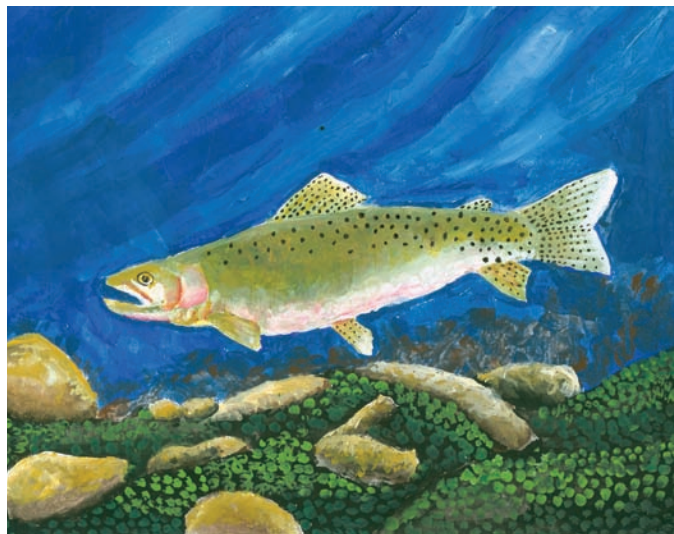


Fish eggs.

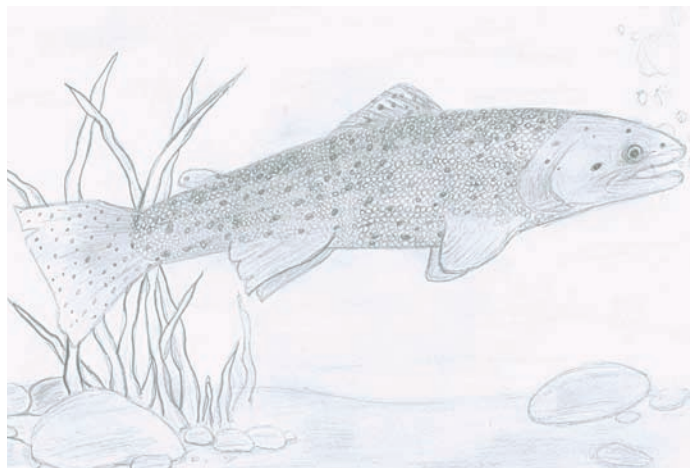
STATE-FISH ART CONTEST

The State-Fish Art Contest is a national contest sponsored by Wildlife Forever to raise awareness of state fish, their biology and conservation. Young artists in grades 4-12 submit artwork and compositions on their state fish. For the last 7 years FWP Region 1 Fisheries along with the Flathead Valley Chapter of TU and Snappy Sport Senter in Kalispell have sponsored a regional contest to increase participation. Entries are displayed at Snappys and judged locally with ribbons and gift certificates awarded. The entries are then forwarded to the national contest where entries within each state are again judged and a winner is chosen for each grade group 4-6, 7-9, and 10-12. For 2010, 100 entries were received locally and forwarded to national.

To learn more about the State-Fish Art Contest go to www.statefishart.com.



1st Place Grade 4-6
Isaac Walker, Canyon Elementary School



1st Place Grade 7-9
Darby Weakly, Galcier High School



1st Place Grade 10-12
Malena Sweet, Plains High School

FISHING NEWSLETTER 2011

FISH RECORDS

Fish	Length (")	Weight (lbs)	Site	Angler	Date
Arctic Grayling	20	3.63 lbs.	Washtub Lake	Glenn Owens	6/28/03
Bigmouth Buffalo	40.7	57.75 lbs.	Nelson Reservoir	Craig D. Grassel	6/4/94
Black Bullhead	14.37	2.60 lbs.	Smiley Slough	Birrell White	6/20/09
Black Crappie	16.7	3.13 lbs.	Tongue River Reservoir	Al Elser	1973
Bluegill	11	2.64 lbs.	Peterson's Stock Dam	Brent Fladmo	6/3/83
Blue Sucker	29.75	11.46 lbs.	Yellowstone River Miles City	Doug Askin	10/7/89
Brook Trout		9.06 lbs.	Lower Two Medicine Lake	John R. Cook	1940
Brown Trout		29 lbs.	Wade Lake	E.H. "Peck" Bacon	1966
Bull Trout	37	25.63 lbs.		James Hyer	1916
Burbot	39	17.08 lbs.	Missouri River Wolf Point	Jeff Eugene Iwen	4/18/89
Channel Catfish	37.6	30.12 lbs	Missouri River Fred Robinson Brdg.	Jessey Perry	5/08/09
Chinook Salmon	38	31.13 lbs.	Fort Peck Reservoir Face of Dam	Carl L. Niles	10/2/91
Cisco	17.25	1.75 lbs.	Below Ft Peck Powerhouse	Curt Zimmerman	5/19/01
Coho Salmon	25.5	4.88 lbs.	Fort Peck Reservoir Face of Dam	Irven F. Stohl	5/29/73
Common Carp	38	40.2 lbs.	Nelson Reservoir	Jared S. Albus	5/24/98
Cutthroat Trout		16 lbs.	Red Eagle Lake	Wm. D. Sands	1955
Emerald Shiner	3.43	0.01 lbs	Park Grove Bridge	Ike Braaten	6/9/06
Flathead Chub	11.2	0.59 lbs.	Thornton Pond	Douglas Jordan	4/29/01
Freshwater Drum	29.5	21.59 lbs	Fort Peck – Ghost Coulee	Matt Washut	5/3/03
Golden Trout	23.5	5.43 lbs.	Cave Lake	Mike Malixi	7/16/00
Goldeye		3.18 lbs.	Nelson Reservoir	Don Nevriy	7/4/00
Green Sunfish	9.0	0.84 lbs.	Hickson's Pond	Bette Schmieding	5/25/09
Kokanee Salmon	26.8	7.85 lbs	Hauser Lake	John Bomar	9/23/03
Lake Chub	3.9	.02 lbs.	Teton River	Joe Hagengruber	8/22/10
Lake Trout	42.5	42.69 lbs.	Flathead Lake	Ruth Barber	6/23/04
Lake Whitefish	27	10.46 lbs.	Flathead Lake	Swan McDonald V	8/26/06
Largemouth Bass	22.5	8.80 lbs.	Noxon Rapids Reservoir	Darin Williams	5/2/09
Largescale Sucker	23.1	6.16 lbs.	Woodland Pond	Kevin Fraley	6/27/08
Longnose Sucker		3.27 lbs.	Marias River	Ray Quigley	5/8/88
Mottled Sculpin		0.05 lbs.	Belt Creek (North of Neihart MT)	Brad Sullivan	7/30/01
Mountain Sucker	6.2	1.60 oz.	Beaver Creek Reservoir	Robert Garwood	4/23/01
Mountain Whitefish	23	5.11 lbs.	Hauser Reservoir	Walt Goodman	10/10/07
Northern Pikeminnow	27.125	7.88 lbs.	Noxon Rapids Reservoir	Darrel Torgimson	5/28/91
Paddlefish	77	142.5 lbs.	Missouri River Near Kipp Park	Larry Branstetter	5/20/73
Northern Pike		37.5 lbs.	Tongue River Reservoir	Lance Moyer	1972
Pallid Sturgeon		60 lbs.	Yellowstone River Near Sidney	Gene Sattler	5/13/79
Peamouth	16.125	1.52 lbs	Clark Fork River	Mike Jensen	7/29/07
Pygmy Whitefish	9.84	0.36 lbs.	Little Bitterroot Lake	Richard Geldrich	2/13/10
Pumpkinseed	9.5	0.96 lbs.	Upper Thompson Lake	Nathan Bache	7/30/06
Rainbow Trout	38.62	33.1 lbs.	Kootenai River David Thompson Brdg	Jack G. Housel, Jr.	8/11/97
Rainbow-Cutthroat Hybrid	35.75	30.25 lbs.	Ashely Lake	Pat Kelley	5/16/82
Redside Shiner	6.5	0.10 lbs.	Lost Lake	Josh Ahles	8/21/01
River Carpsucker	24	6.95 lbs.	Fort Peck Reservoir	Brady Miller	8/15/08
Rock Bass	9.88	0.82 lbs.	Lower Crazy Head Springs Reservoir	Lance Dennis	5/14/10
Sauger	28.2	8.805 lbs.	Fort Peck Reservoir	Gene Moore	12/12/94
Saugeye		15.66 lbs.	Fort Peck Reservoir Squaw Creek	Myron Kibler	1/11/95
Shortnose Gar	34	7.02 lbs.	Fort Peck Dredge Cuts	Ron Gulbertson	12/22/03
Shorthead Redhorse	20.25	4.68 lbs.	Marias River Near Loma	Ray Quigley	4/14/85
Shovelnose Sturgeon	39.75	14.125 lbs.	Missouri River	Chad Buck	5/21/10
Smallmouth Bass	21	6.66 lbs.	Fort Peck Reservoir	Mike Otten	7/30/02
Smallmouth Buffalo	38	38 lbs	Nelson Reservoir	Brady Miller	4/28/07
Spottail Shiner	3.0	.02 lbs	Tiber Reservoir	Joe Hagengruber	8/14/10
Stonecat	10	0.54 lbs.	Milk River	Dale Bjerga	6/16/96
Tiger Muskellunge	48.38	30.0 lbs.	Deadman's Basin Reservoir	Jesse Sanchez	5/15/10
Tiger Trout	20.6	4.04 lbs.	Bear Lake	Joe Sobczak	2/9/97
Utah Chub		1.81 lbs.	Canyon Ferry Reservoir	Eugene Bastian	2/5/92
Walleye	35	17.75 lbs.	Tiber Reservoir	Robert Hart	11/18/07
White Bass	17	2.80 lbs.	Missouri River South of Bainville	Vernon Pacovsky	10/13/07
White Crappie	18.5	3.68 lbs.	Tongue River	Gene Bassett	5/10/96
White Sturgeon	75	96 lbs.	Kootenai River	Herb Stout	1968
White Sucker	21.625	5.33 lbs.	Nelson Reservoir	Fred Perry	2/10/83
Yellow Perch	14.375	2.39 lbs.	Lower Stillwater Lake	Josh Emmert	2/19/06
Yellow Bullhead	11.8	0.93 lbs.	Tongue River Reservoir	Carl Radonski	5/24/98



***Montana Fish,
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